

PROJECT IN RESEARCH IN UNIVERSITIES

College Student Mortality

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Contents

FOREWORD	Page v
CHAPTER I: INTRODUCTION	1
Description of study	2
Nature of data, sources and method of collection	3
Method of compiling data	4
Plan of treatment	4
CHAPTER II: EXTENT OF STUDENT MORTALITY	6
Gross and net mortality	6
Several phases of mortality	7
Differences by sex	11
Students obtaining degrees	14
Students continuing beyond 4 years	15
Students transferring to some other institution	16
Students returning at later date to continue work	17
Student mortality by:	
Years	18
Semesters or quarters	21
Geographical sections	22
Size of community	24
Size of student body	26
Size of college or school	27
Transfer students within university	41
CHAPTER III: CAUSES OF STUDENT MORTALITY	44
Dismissal for failure in work	45
Financial difficulties	48
Death and sickness	48
Needed at home and lack of interest	49
Miscellaneous causes	49

CHAPTER III: CAUSES OF STUDENT MORTALITY—Continued.	Page
Unknown causes	50
Causes of student mortality by college or school	51
CHAPTER IV: FACTORS INVOLVED IN STUDENT MORTALITY	61
Age at entrance	61
Location of home	65
Place of lodging	68
Participation in extracurricular activities	71
Engagement in part-time work	74
CHAPTER V: ACADEMIC ACHIEVEMENT AND STUDENT MORTALITY.	77
Academic load of students	77
Credit-hour load of students in semester or quarter when leaving university	78
Average credit-hour load per semester or quarter	81
Credit-hours earned by students leaving universities	85
Marks of students in academic work	88
Academic marks by college or school	94
CHAPTER VI: SUMMARY	104
CHAPTER VII: SUPPLEMENTARY INSTITUTIONAL STUDIES	107
APPENDIX	111

Foreword

THIS BULLETIN is one of a series reporting the findings of investigations undertaken during 1936-37 under the Project in Research in Universities of the Office of Education. The project was financed under the Emergency Relief Appropriation Act of 1935, and conducted in accordance with administrative regulations of the Works Progress Administration. Study findings in addition to those reported in this bulletin will be made available in other Office of Education or institutional publications.

The Project in Research in Universities represents a unique and significant innovation in cooperative research. Sixty universities and comparable institutions located in 32 States, the District of Columbia, and Hawaii combined efforts with the Office of Education to conduct 40 studies, 23 of which were proposed by the Office and 17 by the institutions. Each institution was invited to participate in all of the approved studies that it was in a position to undertake. From 1 to 14 studies were conducted in each institution, and a total of more than 150 separate study reports were made to the Office of Education.

An important feature of the project was the widespread and coordinated attack on each problem by a number of universities at the same time. Each study proposed by the Office of Education and accepted by the universities was conducted by two or more institutions. As many as 31 institutions, located in 20 States representative of each major geographical division of the country, participated in one study alone. The task of planning, administering, and supervising the many projects and studies on a national scale, under complex and often difficult conditions, demanded the finest type of cooperative endeavor. Except two places where qualified relief workers could not be found or retained, every institution which actually began work on the project carried it through to successful completion. The fine professional spirit in which responsibility for the work was accepted and maintained by the institutions made possible the successful completion of the project within approximately 1 year.

With this professional spirit of cooperation in worth-while research and study of educational problems, was manifested a strong humanitarian desire to join hands with Federal agencies striving during the years of the depression to afford gainful and socially desirable employment to college graduates or former students in the type of work for which they were best prepared. For these contributions to educational research and to the social good of the Nation, the Office of Education extends to its colleagues and helpers in the universities of the country its grateful acknowledgment and appreciation.

The present study consists of the determination of the extent to which students leave college together with an analysis of the factors responsible for their withdrawal. Without implying that all students should continue in college to graduation, those students who leave college constitute one of the major problems confronting the colleges. Is it socially advantageous that they leave college? Does this withdrawal reflect upon the curriculum or the methods of teaching found in the colleges? Should these students have been admitted to college in the first place?

These and many other questions require more definite information than is at present available. The study herewith reported is designed to shed light upon them.

BESS GOODYKOONTZ,
Assistant Commissioner of Education.

[CHAPTER I]

Introduction

ONE of the primary essentials to an intelligent appraisal of the success of higher education is an analysis of college student mortality. By student mortality is meant the failure of students to remain in college until graduation.

Moreover, the first step in determining the advisability of reforms in higher education is the discovery, accumulation, and interpretation of factual data on the subject. This applies to individual universities and colleges as well as to higher education in general. Reorganization of educational programs, improvement in traditional methods of instruction, inauguration of new admission or graduation requirements, readjustments of collegiate environment to students, and changes of a similar nature should be undertaken only upon a basis of detailed knowledge dealing among other things with student mortality in all its phases. Involved in the entire problem of student mortality are such questions as:

What proportion of students registered for degrees leave college prior to graduation?

What proportion complete their work and graduate with degrees in the regular 4-year period?

How long do students remain in college?

To what extent do students transfer to other institutions?

What percentage of students after leaving college return at a later date to continue their work?

To what degree does the rate of student mortality differ among the various types of colleges and professional schools?

What are the principal causes for the failure of students to remain in college?

To what extent are personal and environmental factors operating on students responsible for their withdrawal from college?

Does any casual relationship exist between student mortality and academic achievement?

In this bulletin it is proposed to present a comprehensive analysis of student mortality from the standpoint of these and other relevant questions. Based on a cooperative enterprise in which 25 universities participated, the study will contain information not only for the individual institutions but also for the group as a whole.¹ Most of the previous studies on this subject have been narrow in scope, being confined to a single institution² rather than a group of institutions.³ Thus little is known as to the differences in student mortality among institutions or as to the extent to which students leave college generally throughout the United States. Since these 25 universities are scattered throughout the country, comprise various types of such institutions, and include a typical cross section of their students, it is believed that the results of this study will in a measure be representative of student mortality in higher education on a Nation-wide basis, even though the smaller collegiate institutions are not represented to any large degree in the sampling.

Description of study.—The general plan of this study provided for its prosecution in a uniform manner by each of the 25 cooperating universities. In order to assure comparable data, the Office of Education furnished the specific items for which information was to be collected by the institutions. The Office also designated the sources from which the information was to be derived, the particular types of students to be included, and the period of time to be covered by the study. A uniform method of tabulating and compiling the material in statistical form after its collection was likewise furnished the institutions.

The entire study is based on the class of students entering as freshmen and registered for a degree at the beginning of the academic year, 1931-32, in the different colleges and schools at each of the 25 universities. A tracing of the history and record of these students through their collegiate career was then made for the purpose of discovering those who left the university over the regular 4-year period and those who remained until the close of the academic year, 1934-35, and who graduated with degrees. Information on the paths followed by other students, such as transferring to other institutions, returning at a later date to continue their work or continuing beyond the regular 4-year period without leaving college, was obtained.

Special attention is called to the fact that no attempt was made to account for students entering the university who were not candidates for degrees nor

¹ As an example of one of these institutional studies, see *Academic Progress* by Harold A. Edgerton and Herbert A. Toops, The Ohio State University Press, Columbus, 1929.

² A very limited study of student mortality for a group of institutions was included in the survey of land-grant colleges and universities conducted by the Office of Education in 1927-29. See pp. 281-283, vol. I, part IV, *Survey of Land-Grant Colleges and Universities*, Office of Education, Bulletin 1930, No. 9.

for students who joined the class after the year 1931-32. This arrangement was adopted to avoid complicating the procedures unduly. The institutions, however, were invited to conduct separate studies of the mortality among part-time, special, and other types of students included in their total enrollment in conjunction with the present study.

Nature of data, sources, and method of collection.—In addition to information on mortality itself a large amount of data on the other factors believed to exercise an influence on or have a relationship to student mortality was collected. These data assembled on a blank form ³ furnished by the Office of Education included approximately 75 specific items. Among them were sex of student, age at time of entrance, college or school in which registered, proximity of home to college, place of lodging, causes of leaving university, credit hours registered for and earned during each semester or quarter, academic marks made by student, membership in social fraternity or sorority, participation in extracurricular activities, and engagement in part-time work. It was realized that these items do not constitute all the factors bearing on student mortality. Exigencies of time, however, necessitated the placing of a limitation on the study.

The method of collecting the data consisted of the transfer of the detailed information from the student records of the universities to the blank form. The student records comprised those maintained by the registrar, personnel officer, alumni organization, or other agencies on the campus. Mimeographed copies of the form were prepared, the number of copies equaling the number of freshmen students registered in the several colleges and schools of the institution at the beginning of the academic year 1931-32. Under this arrangement there was a separate form upon which was recorded the required information for each individual student.

In the process of filling in the forms, it was found in a number of the institutions that only a part of the items were available from the student records. As a result it was necessary to prepare questionnaires to be sent directly to the former students requesting them to supply the missing information. Of the 25 universities cooperating in the study, there were 12 which utilized questionnaires for this purpose.⁴ Some of them resorted to follow-up letters when returns were not received promptly from students. Several universities inserted additional items in the questionnaire to be used in connection with local institutional inquiries supplementing the present study.

³ A copy of this blank form is reproduced in the appendix.

⁴ A list of these universities, together with the number of questionnaires sent to former students follows: Boston University, 443; Howard University (Negro), 203; Massachusetts State College, 282; Rutgers University, 300; University of Chicago, 435; University of Denver, 287; University of Florida, 400; University of Louisville, 290; University of Mississippi, 88; University of Toledo, 334; University of Wyoming, 199; and Washington University, 345.

Method of compiling data.—For the compilation of the statistical data after collection, a series of 22 table headings were furnished each institution by the Office of Education. The plan provided for the transfer of the headings to large tabulation sheets for convenience in compiling the data readily. Accompanying each table heading were instructions as to the specific students and items of information to be tabulated in the particular table. The series of tables were so arranged that the totals contained in one table would balance with those in one or more other tables. In this way it was possible to check the figures to assure their accuracy.

A number of the tables required the calculation of percentages. In order to avoid errors, the essential directions were given as to the correct bases upon which each of the percentages was to be computed. In the course of the tabulation of such extensive statistical data, complications developed from time to time at the different universities with respect to various phases of the work. Supplementary explanatory memoranda were sent to the institutions for the purpose of clarifying these difficulties. In consequence of the adoption of this uniform method, the data comprising the study were compiled on precisely the same basis in all the universities participating in the study.

Plan of treatment.—For the purpose of simplification, the various questions involved in student mortality will be treated in this bulletin under four general topics. In chapter II an attempt will be made to analyze the extent of student mortality. Analyses of mortality will be made for the group of universities as a whole, for the individual universities, and for the several colleges and schools within the universities. Differentiations in mortality by sex of students, type of control of institutions, their geographical location, size of student bodies, and size of communities in which they are situated will also be presented.

The next three chapters will be devoted to causal relationships involved in student mortality. Chapter III will consist of an appraisal of the causes of student mortality as revealed by the institutional records and the testimony given by the students as to their reasons for leaving college. Under the topic, factors involved in student mortality, the endeavor will be made in chapter IV to show whether certain phases of collegiate environment are responsible for the failure of students to remain in college. Chapter V will deal with academic achievement and student mortality. Comparisons will be made of academic loads carried, credits earned, and marks made by students leaving the universities with those of students remaining to graduate with degrees. By this means it is hoped to discover whether any causal relationship exists between mortality and academic achievement. In chapter VI will be summarized the results of the entire study.

Supplementary studies.—A major feature of this cooperative study on student

mortality centered in the proposal that supplementary research studies be made by the universities. At the very outset the participating institutions were urged to expand the study to include other groups of students and other items of information applicable to local institutional situations. The institutions were further invited to undertake original studies provided they were related to the general problem of student mortality, conducting them jointly and simultaneously with the present study. Separate reports were to be prepared by the institutions covering these projects. A number of the universities took advantage of this proposal. In the final chapter brief descriptions of these various supplementary studies together with their more significant findings will be presented.

[CHAPTER II]

Extent of Student Mortality

IN ORDER to determine the extent of student mortality in the 25 universities, the first step is to show the number of students entering each institution at the specified time. The next step is the discovery of what happened to them during their collegiate careers.

On a basis of the data collected in this study, the students after entrance fall into one of three groups: (1) left the university during or at the end of the 4-year period generally required for graduation without obtaining degrees; (2) obtained degrees during or at the end of the 4-year period; (3) continued beyond the 4-year period without leaving the university. The first group may then be divided into three subgroups: (1) transferred to some other institution upon leaving the university; (2) returned at a later date to continue their work after leaving the university; or (3) discontinued their higher education upon leaving the university.

In table 1 is given information on these points for each of the universities listed by name. The number of students shown represents those registered for a degree for the first time in the colleges and schools of each institution at the beginning of the academic year, 1931-32. Of these original students, the percentages following these several paths after entrance are given rather than the number of students. The students are classified by sex, the percentages being shown for men students, women students, and total men and women students. The institutions are segregated into publicly controlled and privately controlled universities.

Gross and net mortality.—Before entering into a detailed analysis of the figures contained in table 1, it is necessary to emphasize that the data comprising this study disclose that there are two kinds of student mortality, gross mortality and net mortality.

Gross mortality may be described as including all the students leaving the universities during or at the end of the 4-year period without obtaining degrees as shown in columns 5, 6, and 7 of table 1. Some of these students transferred to some other institution upon leaving the university. Others returned at a later date to continue their work after leaving the university.

It is evident that the latter two types of students did not withdraw from higher education permanently. A part of them merely left the university in which they first registered and went to another institution to pursue their higher educational studies. Another part through force of circumstances withdrew temporarily from the university to return at a later date and continue their higher education. Since these students were in reality reclaimed rather than lost to higher education, they should be deducted from the total students leaving the universities. A net mortality is thus obtained. This net mortality represents the students leaving the universities who neither transferred to some other institution nor returned at a later date to continue their work as shown in columns 20, 21, and 22 of table 1.¹

Because a true and complete picture of the failure of students to remain in the universities cannot be shown without including these two kinds of mortality, both will be presented throughout this chapter dealing with the extent of student mortality.

SEVERAL PHASES OF MORTALITY

As indicated by table 1, the 25 universities embraced in the study embody a fairly typical group of American universities. Included among them are universities with large and small student bodies located in populous and nonpopulous communities. As to type, the regular university, the agricultural and mechanic arts college, and the technical institute are represented in the list. A Negro university is also included in the group. Of the universities included, 14 are publicly controlled and 11 privately controlled.

Total students represented.—The total students entering the universities and registering for degrees at the beginning of the academic year of 1931–32 amounted to 15,535. In the same year there was a total of 249,104 freshmen students enrolled in all universities, colleges, professional schools, and junior colleges throughout the United States.² This mortality study, therefore, is based upon about 1 out of every 16 students entering these types of institutions of higher education in 1931–32. Of the 15,535 students, more than twice as many were men as women students. Two of the universities are conducted exclusively for men students.

¹ It must be realized that this does not represent the absolute net mortality, since some of the students transferring to some other institution or returning at a later date to continue their work again withdrew from college. Data concerning the percentage of these students who again left college will be presented later. Furthermore, it is recognized that information concerning what became of drop-outs is not 100 percent complete.

² U. S. Department of the Interior, Office of Education. Statistics of higher education. In its Biennial survey of education: 1930–1932. p. 47. Washington, U. S. Government Printing Office, 1935. (Bulletin 1933, no. 2.)

TABLE 1.—Student mortality by sex in 25 universities classified according to type of control

Institution	Percentage of students										Leaving university without transferring or returning at later date										
	Students registering for degree at beginning of academic year 1931-32		Leaving university during or at end of 4-year period without obtaining degree		Obtaining degree during or at end of 4-year period		Continuing beyond 4-year period without leaving university		Transferring to some other institution upon leaving university					Returning at later date to continue work after leaving university							
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total						
1	3	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
PUBLICLY CONTROLLED																					
Iowa State College.....	590	216	806	62.7	67.6	64.0	19.9	25.5	21.4	17.4	6.9	14.6	10.1	12.5	10.8	7.3	7.4	7.3	45.3	47.7	45.9
Massachusetts State College.....	199	83	282	42.2	50.6	44.7	57.8	49.4	55.3				(1)	(1)	(1)	13.1	6.0	10.9	29.1	44.6	33.8
New Mexico College of Agriculture and Mechanical Arts.....	101	44	145	69.3	61.4	66.9	21.8	36.3	26.2	8.9	2.3	6.9	8.9	13.6	10.3	20.8	15.9	19.3	39.6	31.9	37.3
Oklahoma Agricultural and Mechanical College.....	540	255	795	74.4	80.8	76.5	17.6	12.9	16.1	8.0	6.3	7.4	(1)	(1)	(1)	9.6	12.5	10.6	64.8	68.3	65.9
Pennsylvania State College.....	932	179	1,111	46.6	30.7	44.0	53.4	69.3	56.0	5			20.2	15.6	18.4	12.9	11.3	12.3	38.7	25.7	36.5
University of Colorado.....	385	256	641	71.9	68.8	70.6	27.6	31.2	29.1	5			18.5	12.4	15.6	15.5			38.8	41.9	39.9
University of Florida.....	788			65.2	65.2	65.2	23.3	23.3	23.3	11.5			18.5	12.4	15.6	15.5			37.3		37.3
University of Georgia.....	376	120	496	56.1	41.7	52.6	32.2	45.0	35.3	11.7	13.3	12.1	12.2	5.8	10.7	3.2		2.4	40.7	35.9	39.5
University of Illinois.....	1,621	615	2,236	63.5	63.8	63.6	25.9	30.2	27.1	10.6	6.0	9.3	8.8	11.4	9.5	(1)	(1)	(1)	54.7	52.4	54.1
University of Louisville.....	140	120	260	82.1	72.5	77.7	17.9	25.9	21.5	2.5	1.4	1.9	12.4	7.7	6.2	7.8	10.8	9.2	69.3	54.2	62.3
University of Mississippi.....	121	39	160	57.8	61.5	58.7	39.7	38.5	39.4	2.5			1.9	12.4	7.7	11.2	3.3	3.8	42.1	48.7	43.7
University of Tennessee.....	376	180	556	82.7	72.8	79.5	11.8	18.3	13.8	5.5	8.9	6.7	8.8	5.0	7.6	11.4	5.0	9.4	62.5	62.8	62.5
University of Toledo.....	362	232	594	81.2	70.7	77.1	10.2	23.7	15.5	8.6	5.6	7.4	16.6	28.9	21.4	16.8	8.6	13.6	47.8	33.2	42.1
University of Wyoming.....	197	131	328	73.6	81.7	76.8	17.3	13.7	15.9	9.1	4.6	7.3	(1)	(1)	(1)	3.0	.8	2.1	70.6	80.9	74.7
Total.....	6,728	2,470	9,198	64.3	65.1	64.5	27.7	30.0	28.3	8.0	4.9	7.2	9.2	10.0	9.4	8.8	5.4	6.4	48.3	49.7	48.7

PRIVATELY CONTROLLED

PRIVATELY CONTROLLED																				
Boston University	391	59	450	55.5	49.2	54.7	13.8	38.9	17.1	30.7	11.9	28.2	3.3	1.7	3.1	5.6	6.8	5.8	46.6	40.7
Brigham Young University	227	146	373	70.5	69.0	70.0	29.5	31.0	30.0									20.6	46.2	45.1
Howard University (Negro)	112	105	217	72.3	70.5	71.4	21.5	21.9	21.7	6.2	7.6	6.9	9.9	7.5	3.5	23.4	16.4	26.2	47.3	42.9
Rensselaer Polytechnic Institute	430		430	50.5		50.5	49.5		49.5				21.7	21.7	21.7	1.9	27.6	1.9	26.9	26.9
Rutgers University	558	306	864	42.5	41.5	42.2	57.5	58.5	57.8				7.4	18.6	11.4	4.5	2.6	3.8	30.6	20.3
Syracuse University	637	478	1,115	49.6	44.4	47.5	50.4	55.6	52.5				11.6	8.1	10.1	3.0	1.5	2.4	35.0	34.8
Tulane University of Louisiana	490	260	750	76.5	61.5	71.3	23.5	38.5	28.7				22.2	16.2	20.1	11.6	1.1	8.0	42.7	44.2
University of Chicago	414	309	723	60.7	66.9	63.3	23.4	24.9	24.1	15.9	8.2	12.6	(1)	(1)	(1)	19.6	15.5	17.8	41.1	51.4
University of Denver	229	182	411	76.8	67.5	72.7	19.3	29.8	23.9	3.9	2.7	3.4	19.6	23.1	21.1	3.5	2.2	2.9	53.7	42.2
University of Detroit	382	8	390	72.3	87.5	72.6	23.0	12.5	22.8	4.7	4.6	4.6	25.9	25.0	25.9	9.7	25.0	10.0	36.7	37.5
Washington University	374	240	614	62.6	53.0	58.8	26.5	39.7	31.6	10.9	7.3	9.6	6.2	3.3	5.0	2.4	5.5	1.7	54.0	49.2
Total	4,244	2,093	6,337	60.9	55.8	58.5	34.0	41.2	36.4	6.1	3.0	5.1	11.8	9.7	11.1	8.2	8.2	7.6	39.9	39.9
Grand Total	10,972	4,563	15,535	62.6	60.8	62.1	39.2	35.1	31.6	7.2	4.1	6.2	10.2	9.8	10.1	7.3	5.8	6.8	45.1	45.2

¹ Percentages of students transferring to other institutions not furnished.
² Percentages of students leaving university without transferring or returning at later date would be lower, had percentages of students transferring to other institutions been furnished.

³ Percentages of students returning at later date to continue work after leaving university not furnished.

⁴ Percentages of students leaving university without transferring or returning at later date would be lower, had percentages of students returning at later date to continue work after leaving university been furnished.

Students leaving universities.—Students registering in 1931-32 comprise the class supposed to graduate, generally speaking, at the close of the academic year 1934-35. According to column 7 of table 1, there are striking differences in the percentages of students leaving the individual universities during or at the end of this intervening 4-year period without obtaining degrees. Such percentage denotes the gross student mortality. Among the 25 universities, the percentage ranged from 42.2 to 79.5.

This means that in the university with the smallest percentage, slightly more than two out of every five students left the institution during the 4-year period. In the university with the largest percentage, four out of every five students originally registered failed to remain. Thus, twice as many students left the latter university as the former. Similar ratios between the other institutions show marked differences.

As already explained, the percentages showing gross student mortality constitute only one barometer of mortality. A different situation is presented when the net student mortality as shown by the percentages in column 22 of table 1 is considered. Using the University of Toledo as an example, the gross proportion of students leaving the university or the gross student mortality is given at 77.1 percent. There were 21.4 percent of the students who transferred to some other institution upon leaving the university and 13.6 percent who returned at a later date to continue their work after leaving the university. Deducting these students, the net mortality amounted to 42.1 percent.

The net mortality for the individual institutions reveals as striking differences as in the case of gross mortality. The percentage for the various universities varied from 26.9 to 62.5, excluding those for which information on students either transferring or returning at a later date were not furnished. Again comparing the universities with the smallest and largest percentages, it is found that about one out of every four students left the institution with the smallest percentage. On the other hand, almost two out of every three students left the university with the highest percentage.

The extent of student mortality on both a gross or net basis in publicly controlled as compared with privately controlled universities is presented in graphic fashion in the following figure. The same information is shown for the universities as a whole. Percentages given in the figure are derived from columns 7 and 22 of table 1.

Data contained in figure 1 for the universities as a whole may be regarded in a sense as a measure of student mortality for higher education in general. The percentage showing gross mortality indicates that out of every 100 students originally registering, 62 left the universities during the 4-year period without obtaining degrees. Of this latter number, however, approximately 17 out of every 100 students either transferred to

some other institution or returned at a later date to continue their work. The result was that 45 out of every 100 students withdrew from the universities permanently, as denoted by the percentage giving the net mortality.

Student mortality was greater in the publicly controlled than in the privately controlled universities, according to the figure. This applies both to gross and net mortality. As shown by the percentages for gross mortality, approximately 65 out of every 100 students left the publicly controlled universities as compared with 59 out of every 100 students for the privately controlled universities. Thus, 6 fewer students per 100 on a gross basis left the privately controlled than the publicly controlled uni-

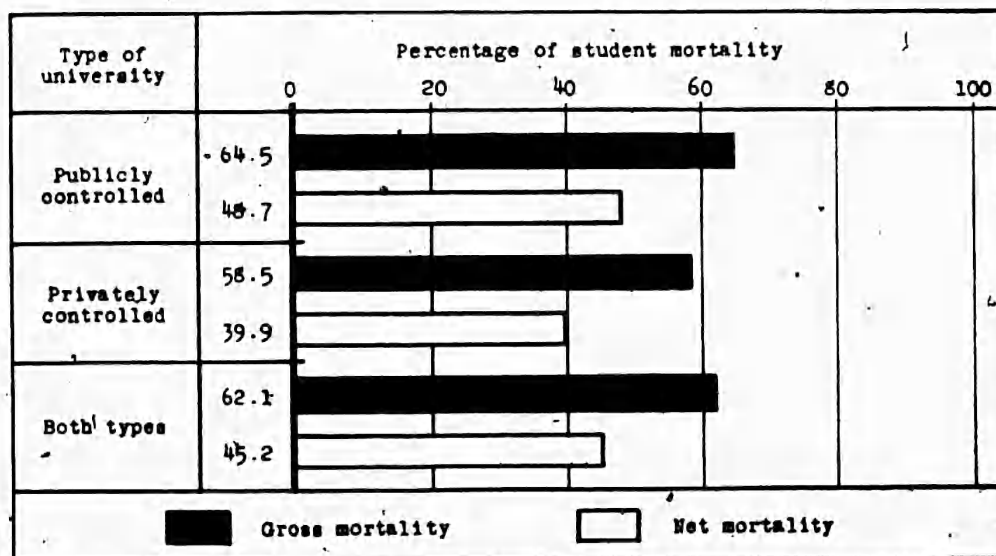


FIGURE 1.—Student mortality in publicly and privately controlled universities.

versities. Percentages for net mortality showed that out of every 100 registering in publicly controlled universities, approximately 49 students left. In the privately controlled universities, the ratio was 40 out of every 100 students. Accordingly, 9 fewer students per 100 on a net basis left the privately controlled than the publicly controlled universities.

Differences by sex.—In order to determine the differences by sex, it is necessary to compare the rate of mortality for men and women students within the individual universities as well as for the universities as a whole. Significant differences existed within individual universities. This is true both with respect to gross and net mortality. The gross mortality for men and women students is shown by the percentages contained in columns 5 and 6 and the net mortality in columns 20 and 21 of table 1.

Of the 22 universities conducted on a coeducational basis,³ there were 15

³ The 2 universities with only men students registered have been omitted. In addition, the University of Detroit has not been considered because of the small number of women students registered in that institution.

in which the gross mortality for men students exceeded that of women students. Similarly, the net mortality in 13 of the universities was higher for men than women students. In the remaining universities, a larger percentage of women than men students left the institutions. For the purpose of presenting the extent of these differences, table 2 has been prepared. The excess percentage of men students leaving the institutions over that of women students or vice versa is given for each university. The figures were obtained by subtracting the percentages giving the mortality for the two sexes. Publicly and privately controlled universities are segregated.

TABLE 2.—Extent of differences in mortality between men and women students in 22 universities

Institution	Gross student mortality		Net student mortality	
	Excess of percentage for men students	Excess of percentage for women students	Excess of percentage for men students	Excess of percentage for women students
1	2	3	4	5
PUBLICLY CONTROLLED				
Iowa State College		4.9		2.4
Massachusetts State College		8.4		15.5
New Mexico College of Agriculture and Mechanic Arts	7.9		7.7	
Oklahoma Agricultural and Mechanical College		6.4		3.5
Pennsylvania State Arts	15.9		13.0	
University of Colorado	3.1			3.1
University of Georgia	14.4		4.8	
University of Illinois		.3	2.3	
University of Louisville	9.6		15.1	
University of Mississippi		3.7		6.6
University of Tennessee	9.9			.3
University of Toledo	10.5		14.6	
University of Wyoming		8.1		10.3
Total		.9	.3	
PRIVATELY CONTROLLED				
Boston University	6.3		5.9	
Brigham Young University	1.5		1.1	
Howard University (Negro)	1.8		4.4	
Rutgers University	1.0		10.3	
Syracuse University	5.2		1.2	
Tulane University of Louisiana	15.0			1.5
University of Chicago		6.2		10.3
University of Denver	9.3		11.5	
Washington University	9.6		4.8	
Total	4.0		2.6	

Among the 15 institutions having a higher gross mortality for men than women students, there were 2 in which the excess of men over women students leaving the university was approximately 15 percent and 5 in which the excess was approximately 10 percent, according to table 2. In the case of the 7 institutions with a higher gross mortality for women than

men students, only 2 institutions had an excess as high as 8 percent of women over men students leaving the university.

The extent of these differences is somewhat altered when net mortality is considered, although the greater rate of mortality for men students is maintained. Of the 13 institutions having a higher net mortality for men than women students, the excess in 5 was from 10 to 16 percent and in 5 others from 4 to 8 percent. On the other hand, of the 8 institutions with a higher net mortality for women than men students, the excess in 3 was from 10 to 16 percent and in 1 was slightly less than 7 percent.

Before considering the differences between the publicly and privately controlled universities, it will be noticed that the excess percentage in column 3 of table 2 shows a slightly higher gross mortality for women than men students in the publicly controlled universities, notwithstanding the higher excess percentages of men over women students just pointed out as leaving individual universities. This apparent discrepancy may excite interest. The reason is that the universities having the higher mortality for women students also had the larger numbers of women students registered whereas the numbers of men students registered in the universities bore no relation to the mortality of men students.

The extent of the differences by sex was less in the publicly controlled than in the privately controlled universities. A slightly higher gross mortality existed for women than men students in the publicly controlled universities and a slightly higher net mortality for men than women students. The privately controlled universities showed for both gross and net mortality a higher percentage of men than women students leaving the university. The excess percentages in each instance were larger than those for publicly controlled universities.

Student mortality by sex for the universities as a whole is shown in the following figure. The percentages of men and women students leaving the universities on both a gross and a net basis are indicated. Special attention is called to the fact that the percentages given in the figure do not correspond with those in columns 5, 6, 20, and 21 of table 1. This is due to the omission of two universities registering only men students and the third university registering a relatively small number of women students.

For the universities as a whole, both gross and net mortality among men students were greater than among women students, according to figure 2. This would tend to indicate that in higher education generally throughout the United States, a proportionately larger number of men than women students fail to remain in college until graduation. The extent of the differences by sex, however, was not very great. From one to two more men than women students per 100 left the universities on both a gross and net mortality basis.

Students obtaining degrees.—Students graduating with degrees during or at the end of the 4-year period present the other side of the student mortality picture. Such students represent those who completed without delay their collegiate careers. The percentages of students obtaining degrees in the individual institutions, as shown by column 10 of table 1, differ even more strikingly than the percentage of students leaving the university. Among the 25 universities, the percentage ranged from 57.8 to 13.8. It must be emphasized that these percentages do not represent the total number of the students originally registered in 1931-32 who obtained degrees. As will be presented later, other students obtained degrees after the expiration of the regular 4-year period.

In the university with the highest percentage almost 6 out of every 10 students obtained degrees during or at the end of the 4-year period. In

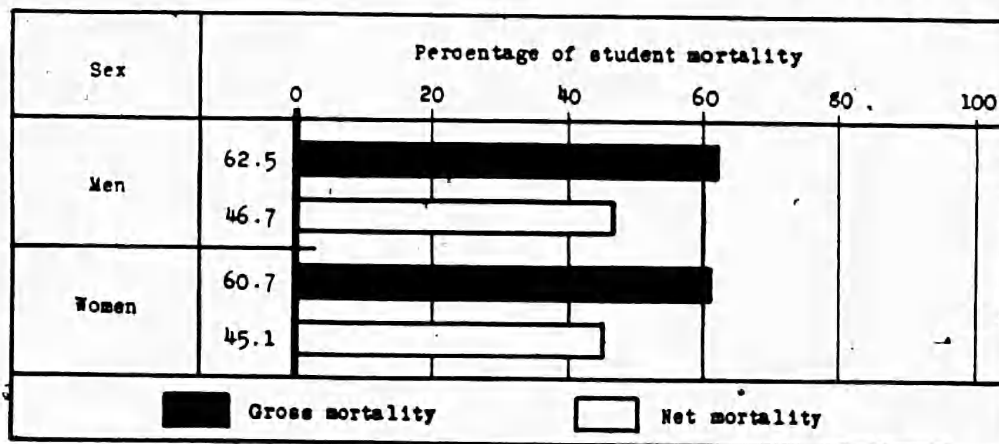


FIGURE 2.—Student mortality by sex.

the university with the lowest percentage, slightly less than 1 student out of every seven obtained a degree. Accordingly, more than four times as many students obtained degrees in the university with the highest percentage as in the university with the lowest. Comparisons of the percentages of students obtaining degrees in the other institutions reveal differences only in a lesser degree.

Considerable differences by sex existed, an analysis of the percentages in columns 8 and 9 of table 1 disclosed. In 17 out of 21 of the universities a larger proportionate number of women than men students succeeded in obtaining degrees. The other 4 universities had a larger proportion of men than women students obtaining degrees. Among the former univer-

* In addition to two universities registering only men students and one university registering a small number of women students, Boston University has been omitted from consideration here because of the 5-year degree-granting college conducted at that institution. The percentages of students obtaining degrees in the regular 4-year period would be distorted to a considerable degree for both men and women students due to the inclusion of this college.

sities, there were three in which the percentage of women students obtaining degrees exceeded that of men students by 14 to 16, three by 12 to 13.9, and one by approximately 11. Among the latter universities, there was only one in which the excess for men over women students obtaining degrees was as high as 8 percent.

The following figure presents information on the students obtaining degrees in the publicly controlled as compared with the privately controlled universities and in the universities as a whole.

For the universities as a whole, a little less than one out of every three students succeeded in obtaining degrees, as indicated in figure 3. A higher percentage of students obtained degrees in the privately controlled than in the publicly controlled universities. For the publicly controlled universi-

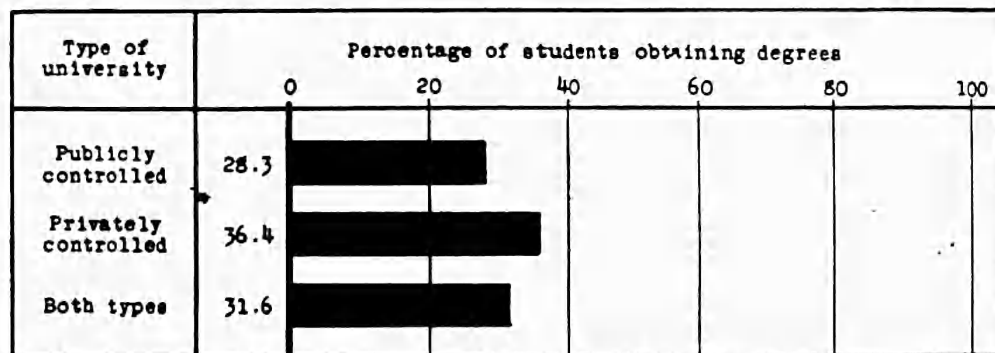


FIGURE 3.—Percentage of students obtaining degrees during or at the end of 4-year period.

ties slightly less than two out of every seven students obtained degrees and for the privately controlled slightly more than one out of every three students.

Students continuing beyond 4 years.—Students continuing beyond the 4-year period without leaving the university include in a large measure those whose normal progress through their collegiate careers was retarded. No attempt was made in this study to ascertain the circumstances responsible for such retardation.

Of the 25 universities, there were 7 which did not report any students continued beyond the 4-year period, as indicated by column 13 of table 1. It is evident, therefore, that the universities maintained different policies with respect to encouraging students to continue in the institutions after failing to graduate within the required time. In slightly more than one-fourth of the institutions, a definite policy apparently prevailed against encouraging students to remain beyond the regular 4-year period. Most of them were privately controlled universities.

The percentage of such students varied rather widely among the remaining institutions.⁵ In the university with the highest percentage, about 15

⁵ Boston University with 28.8 percent of the students continuing beyond the 4-year period is not included. The high percentage in that institution was due to the operation of a 5-year college of business administration.

out of every 100 students continued beyond the 4-year period, while in the university with the lowest percentage the ratio was 3 to every 1,000 students. This means that 50 times as many students continued beyond 4 years in the former as in the latter institution.

As to differences by sex, proportionately more men than women students continued beyond the 4-year period. This was the case in all the universities except four, as disclosed in columns 11 and 12 of table 1. Within one individual university the percentage of men students continuing beyond 4 years was 10.5 in excess of that of women students. The publicly controlled universities had a larger percentage of these students than those under private control. About 1 out of every 14 students continued beyond the 4-year period in the publicly controlled universities as compared with about 1 out of every 20 in the privately controlled universities. For the universities as a whole, about 1 out of every 16 students continued beyond 4 years.

An important question connected with these students is whether they ultimately graduated with degrees or left the university after remaining longer than 4 years. Unfortunately, only partial data are available. Since the regular 4-year period ended at the close of 1934-35 and the final compilations for this study were completed by the institutions during the late summer or fall of 1936, it is possible to show what happened to the students for only 1 academic year beyond the 4-year period.

Out of the 18 universities having students continuing beyond the 4-year period, 9 furnished information on this point. However, more than two-thirds of all the students continuing beyond 4 years were represented. The combined figures for these institutions indicated that 64.8 percent of such students graduated with degrees in their fifth year. Of the remaining 35.2 percent, a considerable number originally registered as premedical, pre-dental, or prelegal students and transferred to the medical, dental, or law school within the university at the end of 2 years. Most of these students either graduated from these professional schools later or are still in attendance. It would appear, therefore, that only a very minor proportion of the students actually left the institutions after continuing beyond 4 years.

Students transferring to some other institution.—As previously emphasized, students transferring to some other institution upon leaving the universities constitute an important factor in presenting a complete picture of student mortality. While such students were lost as far as the particular university in which they first registered is concerned, they did not abandon their higher education.

Of these students, there are in general two types: (1) those leaving the university because of a desire for change in collegiate environment or similar reason and (2) those originally entering as premedical, pre-dental, or prelegal students and leaving to complete their training in a profes-

sional school at another institution. No effort was made in the present study to segregate the two types of students.

Moreover, it is not altogether certain that the data regarding transfer students are entirely valid. The universities were not able to trace the students to ascertain whether they actually entered the institutions to which they were supposed to transfer. As a result, the students counted as transferring to other institutions consisted largely of those whose transcripts of record were sent to another institution or who requested a transcript of their own records and at the same time announced their intention of transferring.

Of the original students registered in all the universities, the figures show that 10.1 percent transferred to some other institution. The Office of Education recently completed a detailed study of transfer students in 426 liberal arts colleges in which were included 141 arts and sciences colleges in universities. One of the findings of the study was as follows: "If all the students in the total enrollment who transferred were counted, probably the median percentage * * * of transfers would be at least 10." ⁶ Although computed on different bases, almost identical percentages were found for students transferring to other institutions in this study and the present study.

Rather wide differences existed in the proportion of students transferring to some other institution among the individual universities, according to column 16 of table 1. The percentages ranged from 25.9 to 3.1, that is, in the university with the highest percentage approximately one-fourth of the students transferred in contrast with one thirty-third of the students in the university with the lowest percentage. In the privately controlled universities the percentage of students transferring to some other institution was 1.7 higher than that for the publicly controlled universities. With respect to sex, differences were not relatively great, as shown by the percentages in columns 14 and 15 of table 1. Mention should be made that it is not known whether these students ultimately left the institutions to which they transferred or obtained degrees. The mortality for the original group of students would be increased correspondingly with the number of them who left college at a later time without graduating.

Students returning at a later date to continue work.—Besides having a fundamental bearing on mortality, the extent to which students returned at a later date to continue their work after leaving the universities denoted in a way persistence or perseverance on the part of the students in securing a higher education.

The percentages of such students, as contained in column 19 of table 1,

⁶ Kelly, Fred J. *Continuity of college attendance*. Washington, Government Printing Office, 1937. Pp. 11 and 12. (Office of Education Bulletin 1937, no. 24.)

ranged from 26.2 to 0.3 in the different institutions. Thus the same pronounced variations among the individual universities prevailed as with students following other paths in their collegiate careers. There is a possibility that the variations may be due to the fact that some universities discouraged the return of students after leaving while others followed a policy of encouraging their return.

As revealed in columns 17 and 18 of table 1, a greater percentage of men than women students in general returned at a later date to continue their work. In two of the coeducational universities no women students came back after leaving. Comparing the universities on a basis of control, the percentage of students who returned at a later date in the publicly controlled universities was 1.1 less than that in the privately controlled universities. For the universities as a whole, about 1 out of every 15 students returned after leaving the university. The proportion of such students was not as large as that of students transferring to other institutions.

From a mortality viewpoint, the question arises as to whether the students returning at a later date to continue their work again left the university or remained to obtain degrees. Seven of the universities furnished information on what happened to these students after reinstating themselves. The number represented a little less than one half of all students returning at a later date. According to the information, 40.3 percent of the students obtained degrees in 1935-36, no record being available subsequent to that year. Most of the remaining 59.7 percent again left the institutions. Several universities reported students returning a second and third time to continue their work after leaving.

STUDENT MORTALITY BY YEARS

A distribution of the students according to the years when they left the universities or the length of time they remained before leaving is presented in table 3. The number of students is first shown for each university. The percentages of students leaving during or at the end of the freshman, sophomore, junior, and senior year are then shown. Students are segregated as to sex and institutions as to type of control. The percentages are not based on the total students leaving the university but on the total students registered for degrees at the beginning of the academic year of 1931-32. It must be understood that the figures are on a basis of gross mortality.

The usual picture of a larger percentage of students leaving in the freshman year with a progressive decline in the percentage of students leaving in the sophomore, junior, and senior years is presented by table 3. This was the case in all the universities with four exceptions. Three institutions had a larger percentage of students leaving in the senior than in the junior year and one had the same percentage leaving in the junior and senior years.

TABLE 3.—Years in which students segregated by sex left 25 universities classified according to type of control

Institution	Num-ber of students	Freshman year				Sophomore year			Junior year			Senior year		
		Men		Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
PUBLICLY CONTROLLED														
Iowa State College.....	806	39.5	35.7	38.4	11.5	21.8	14.3	8.5	7.8	8.3	3.2	2.3	3.0	
Massachusetts State College.....	282	25.1	30.1	26.6	6.5	12.0	8.2	5.0	2.5	4.3	5.6	6.0	5.6	
New Mexico College of Agriculture and Mechanic Arts.....	145	36.7	31.8	35.2	16.8	11.4	15.2	2.9	15.9	6.9	12.9	2.3	9.6	
Oklahoma Agricultural and Mechanical College.....	795	30.6	22.8	28.1	21.8	35.3	26.2	13.3	18.4	14.9	8.7	4.3	7.3	
Pennsylvania State College.....	1,111	36.9	17.8	33.8	5.4	11.8	6.4	2.1	1.1	1.9	2.2	1.9	1.9	
University of Colorado.....	641	38.6	37.1	38.1	18.2	21.1	19.3	8.3	7.4	7.9	6.8	3.2	5.3	
University of Florida.....	788	36.9	36.9	36.9	17.4	17.4	17.4	7.4	7.4	7.4	3.5	3.5	3.5	
University of Georgia.....	496	30.8	30.8	30.8	14.5	6.7	12.7	8.5	2.5	7.1	2.2	1.7	2.0	
University of Illinois.....	2,236	31.8	33.6	31.8	17.4	18.3	18.1	9.4	7.0	8.8	5.5	3.4	4.9	
University of Louisiana.....	260	40.7	43.3	41.9	20.7	18.3	19.6	17.1	9.2	13.5	3.6	1.7	2.7	
University of Mississippi.....	160	36.3	33.3	35.6	16.6	26.2	15.6	3.3	10.3	5.0	1.6	5.1	2.5	
University of Tennessee.....	556	36.7	33.3	35.6	21.8	26.2	23.2	11.8	10.5	12.8	10.4	2.8	7.9	
University of Toledo.....	594	48.1	40.1	44.9	21.8	23.7	22.6	7.7	5.6	6.9	3.6	1.3	2.7	
University of Wyoming.....	328	47.7	49.6	48.5	14.8	22.9	17.9	7.6	5.4	6.7	3.5	1.8	1.7	
Total.....	9,198	35.6	33.5	35.1	15.6	20.9	17.0	8.2	7.9	8.1	4.9	2.8	4.3	
PRIVATELY CONTROLLED														
Boston University.....	450	26.3	20.3	25.6	14.3	20.3	15.1	7.7	6.8	7.6	7.2	1.8	6.4	
Brigham Young University.....	373	44.0	39.7	42.3	15.0	21.2	17.4	8.4	8.1	8.3	3.1	1.8	2.6	
Howard University (Negro).....	217	34.4	51.5	44.6	20.5	14.3	17.6	12.5	3.8	8.3	9.9	9.9	9.9	
Rensselaer Polytechnic Institute.....	430	22.3	26.9	22.3	15.8	14.3	15.8	7.7	7.7	7.7	4.7	4.7	4.7	
Rutgers University.....	864	28.5	26.9	27.9	9.6	10.8	10.1	2.9	3.4	3.0	1.5	4.7	1.2	
Syracuse University.....	1,115	22.6	24.1	23.3	13.2	11.5	12.5	5.3	6.1	5.2	8.5	2.7	6.0	
Tulane University of Louisiana.....	750	41.3	55.7	47.5	21.0	3.9	15.1	10.4	1.9	7.5	4.2	4.5	4.3	
University of Chicago.....	723	29.9	32.0	30.9	15.9	23.9	19.4	10.7	6.5	8.7	4.2	2.2	3.4	
University of Denver.....	411	42.4	39.5	41.1	21.8	19.2	20.7	8.3	6.6	7.5	4.3	4.3	4.3	
University of Detroit.....	390	39.3	62.5	39.8	22.5	12.5	22.4	9.2	4.3	8.9	1.1	12.5	1.5	
Washington University.....	614	27.8	23.8	26.2	20.6	20.8	20.7	10.2	5.4	8.3	4.0	3.0	3.6	
Total.....	6,327	31.5	33.4	32.1	16.5	18.1	16.1	7.8	5.3	6.9	4.1	4.0	3.4	
Grand total.....	15,525	34.0	33.5	33.8	15.9	19.2	16.7	8.1	6.7	7.7	4.6	2.4	3.9	

The same striking differences among the individual universities are again found. Since the freshman year is generally regarded as a critical one because the students are confronted with the difficulty of adjusting to a new environment, figures for that year are of special significance. Students leaving during or at the end of the freshman year varied from 48.5 percent in the university with the highest percentage⁷ to 22.3 percent in the university with the lowest percentage, as recorded in column 5 of table 3. In the former university almost every other student left in his freshman year while in the latter two out of every nine students left.

For the sophomore and junior years, similar variations existed among the individual institutions. The senior year, also is supposed to represent a critical time for the students since they are nearing the close of their collegiate career and are on the verge of graduation. Students leaving in their senior year, according to column 14 of table 3, ranged from 9.6 to 0.9 percent. In other words, approximately 1 out of every 10 students left in the senior year at the institution having the highest percentage as compared with approximately 1 out of every 100 students at the institution with the lowest percentage. Variations in the percentages of students leaving in the senior year at the individual institutions may be attributed in part to the practice in some universities of eliminating students in the earlier years.

A slightly higher percentage of students left the publicly controlled than the privately controlled universities in all the years due doubtlessly to the greater mortality in the former institutions. Some interesting differences by sex are found. For example, the percentage of men students who left the publicly controlled universities in the freshman year was 2.1 higher than that of women students, whereas the percentage of women students who left the privately controlled universities exceeded that of men students by 1.9. Conversely, the percentage of women students leaving the publicly controlled universities in the sophomore year was 5.3 in excess of that of men students as compared with an excess of 1.4 for men over women students leaving the privately controlled universities in the same year. The percentages of men students leaving both the publicly controlled and privately controlled universities exceeded those of women students in the junior and senior years.⁸

Differences in the percentage of students leaving universities as a whole

⁷ It has been claimed that from a financial point of view a high mortality in the freshman year is advantageous both to the student and the institution. The student by leaving in this year is saved the expense of continuing in college for a year or so longer when he will be eliminated whereas the institution is saved the cost of furnishing education to the student for this additional year or so.

⁸ In analyzing these differences by sex, the two universities registering only men students were not excluded since it was found that their elimination would not result in any material change in the percentages of men and women students leaving publicly and privately controlled universities in the different years.

in the several years are given in graphic style in the figure which follows. The percentages are taken from columns 5, 8, 11, and 14 of table 3.

The progressive decrease of students leaving the universities from the freshman to the junior year is further aptly exemplified in figure 4. For every 100 students originally registering in the universities as a whole, about 34 left in the freshman year, 17 in the sophomore year, 8 in the junior year, and 4 in the senior year. With each succeeding year, therefore, one-half less students left than in the preceding year. Approaching the subject from the angle of the length of time the students remained in the universities before leaving, approximately 66 out of every 100 remained through the freshman year and entered the sophomore year, 49 through the sophomore year and entered the junior year, 41 through the junior year and entered the senior year, and 37 through the senior year. Nearly all

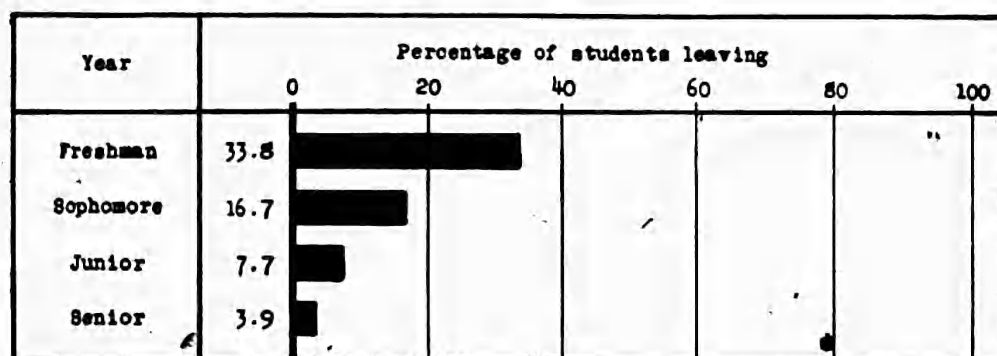


FIGURE 4.—Percentage of students leaving universities by years.

the latter students graduated with degrees. It must be stressed here that the percentages are based on gross student mortality.

Student mortality by semesters or quarters.—Provision was made in the initial plan of this study to ascertain when the students left the universities within each year. In the institutions operating on a semester basis, the information was designed to show the students who left the university during the first semester and at the end of the first semester together with those leaving during the second semester and at the end of the second semester. Correspondingly, in the institutions conducted on a quarter system the students who left during and at the end of the first, second, and third quarters were to be shown. Inasmuch as the greater percentage of the students left during the freshman year, the information will be presented only for that year. In the aggregate the same proportions of students were found leaving at the different periods of time within the sophomore, junior, and senior years.

There were 22 institutions furnishing comparable data on this question,

15 being operated under the semester system and 7 under the quarter system. Of the total students leaving the universities under the semester system in the freshman year, 9.5 percent left during the first semester, 22.4 percent at the end of the first semester, 14.2 percent during the second semester,⁹ and 53.9 percent at the end of the second semester. Hence, almost one-fourth of the students left during the semesters. In the universities under the quarter system, 6.8 percent left during the first quarter, 22.6 percent at the end of the first quarter, 3.2 percent during the second quarter, 15.1 percent at the end of the second quarter, 1.5 percent during the third quarter, and 50.8 percent at the end of the third quarter. In the case of these institutions about one-ninth of the students left during the quarters.

It will be observed that the percentages of students leaving during the first semester and first quarter are higher than those of students leaving during the other semesters or quarters. This information is of special importance since such students apparently left the universities almost immediately after entrance or remained only a very brief time before leaving. Of all the students in both types of institutions, more than half left at the end of the second semester or third quarter. These comprise students who failed to return at the beginning of the fall session after spending 1 year in college.

STUDENT MORTALITY BY GEOGRAPHICAL SECTIONS

A question of particular import is whether a proportionately greater number of students left universities located in one part of the country than in another.

For the purpose of answering this question the country was divided into four geographical sections.¹⁰ Figures for the universities located in each of these sections were combined. The results are presented in table 4. The number of universities in each section and the number of students represented are shown. As in table 1, the percentages of students following the different paths through their collegiate careers are given so that both gross and net mortality are available for the several geographical sections. The table is so arranged as to rank the geographical sections according to rate of gross student mortality, the section with the smallest being placed first.

⁹ The tabulations of one of the universities showed 68.4 percent of the students leaving during the second semester.

¹⁰ The same geographical division adopted by the U. S. Census Bureau was followed except that the nine sections used by the Bureau were reduced to four by joining contiguous sections.

TABLE 4.—Comparison of student mortality in different geographical sections of the United States

Geographical section	Number of institutions	Number of students	Percentage of students—					
			Leaving university during or at end of 4-year period without obtaining degree	Obtaining degree during or at end of 4-year period	Continuing beyond 4-year period without leaving university	Transferring to some other institution upon leaving university	Returning at later date to continue work after leaving university	Leaving university without transferring or returning at later date
1	2	3	4	5	6	7	8	9
New England and Middle Atlantic States.....	6	4, 252	46.3	50.7	3.0	9.4	3.0	33.9
North Central States.....	6	5, 363	65.2	24.8	10.0	10.4	5.9	48.9
Southern States.....	8	4, 022	69.9	23.5	6.6	9.4	10.4	50.1
Mountain and Pacific States.....	5	1, 898	71.8	25.6	2.6	12.3	10.7	48.8

Geographical sections differed greatly as to students leaving the universities. The New England and Middle Atlantic States section had by far the lowest gross mortality, as shown by the percentages in column 4 of table 4. The percentage of students who left the universities on a gross basis in that section was 18.9 less than that in the North Central States section, 23.6 less than that in the Southern States section, and 25.5 less than that in the Mountain and Pacific States section.

With respect to net mortality, as shown by the percentages in column 9 of table 4, differences in the geographic sections were shifted considerably. The new England and Middle Atlantic States section also had the lowest net mortality while the highest net mortality was found in the Southern States section. The net mortality in the North Central States section was approximately the same as that in the Mountain and Pacific States section. In the New England and Middle Atlantic States section, the percentage of students who left the universities on a net basis was 16.2 less than that in the Southern States section. The following figure presents graphically gross and net mortality by geographical sections.

Of special interest are the differences in geographical sections with respect to other phases of student mortality, as disclosed by table 4. Approximately twice as many students obtained degrees during or at the end of the 4-year period in the universities located in the New England and Middle Atlantic States section as in those located in any other sections. The North Central States section had the largest percentage of students continuing beyond the 4-year period without leaving the universities. A greater proportion of students transferred to other institutions in the Mountain and Pacific States section than in the other sections. Both the

New England and Middle Atlantic States section and the North Central States section had relatively very small percentages of students returning at a later date to continue their work. In the Southern States section and

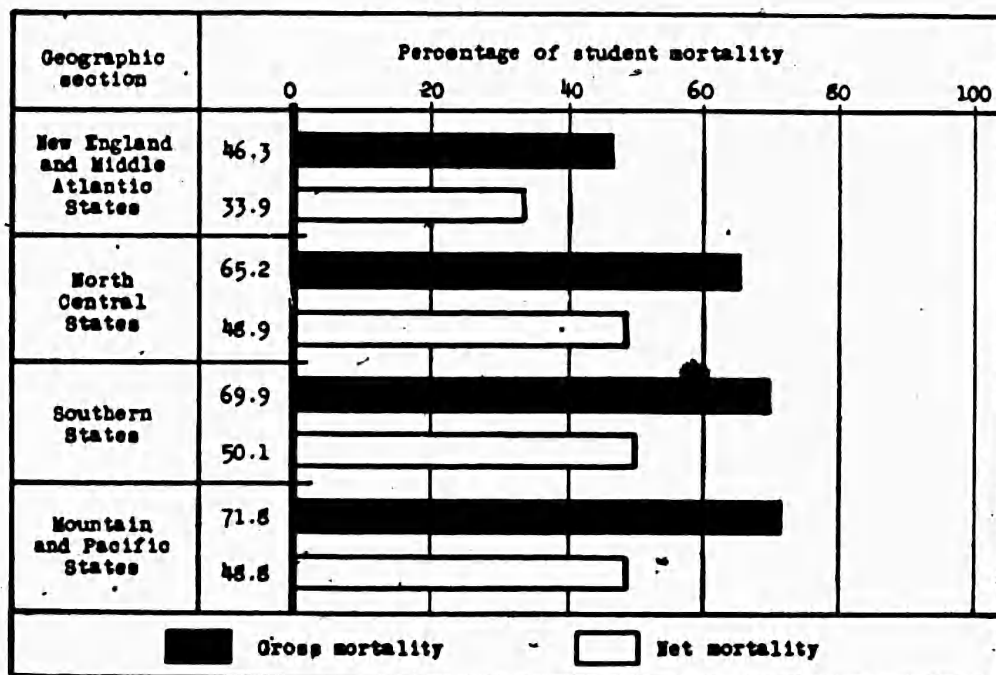


FIGURE 5.—Student mortality by geographical section.

in the Pacific States section, the percentages of such students were from two or three times as great.

STUDENT MORTALITY BY SIZE OF COMMUNITY

Considerable significance is attached to whether there was a greater student mortality among the universities located in more populous communities than those in less populous communities.

In table 5 data are given concerning this subject. The universities are grouped according to the size of communities in which they are located. Of the universities included in the classification of communities having fewer than 10,000 inhabitants, several are located in very small villages or in the open country. Similarly, several of the universities classified as being located in communities of 300,000 or more inhabitants are situated in cities exceeding 1,000,000 in size. The numbers of universities and students are shown for each classification. Percentages of students following the different paths are given, the same headings being used as in the previous table.

TABLE 5.—Comparison of student mortality among universities located in different sized communities

Institutions located in communities of—	Number of institutions	Number of students	Percentage of students					
			Leaving university during or at end of 4-year period without obtaining degree	Obtaining degree during or at end of 4-year period	Continuing beyond 4-year period without leaving university	Transferring to some other institution upon leaving university	Returning at later date to continue work after leaving university	Leaving university without transferring or returning at later date
1	2	3	4	5	6	7	8	9
Fewer than 10,000 inhabitants.....	6	2,821	59.0	37.6	3.4	4.1	5.5	42.4
10,000 to 49,999 inhabitants.....	7	6,204	61.1	31.2	7.7	10.9	6.2	44.0
50,000 to 299,999 inhabitants.....	5	3,106	62.6	34.3	3.1	14.9	5.8	41.9
300,000 or more inhabitants.....	7	3,404	65.8	25.0	9.2	9.2	10.1	46.5

Although the differences were not great, gross mortality increased with the size of the communities in which the universities were located. As shown by column 4 of table 5, the percentage of students on a gross basis leaving universities located in communities of fewer than 10,000 inhabitants was 6.8 less than that for universities located in communities of 300,000 or more inhabitants. Due to the high percentage of students transferring to other institutions and returning at a later date to continue their work for the universities in the larger communities this picture is almost completely reversed in the case of net mortality, as indicated by column 9 of table 5. The universities located in communities of fewer than 10,000 inhabitants had the highest net mortality. The group with the lowest net mortality consisted of the universities located in communities of 50,000 to 299,999 inhabitants. The percentage of students leaving the former universities exceeded that of the latter by 7.5.

Some rather interesting differences are found in the percentages of students obtaining degrees during or at the end of the 4-year period among the universities located in large and small communities. The percentage of students obtaining degrees at the universities in communities of fewer than 10,000 inhabitants was 12.6 in excess of that at the universities in communities of 300,000 or more inhabitants. On the other hand, the percentage of students continuing beyond the 4-year period in the universities located in the largest-sized communities was more than two and one-half times that for the universities located in the smallest-sized communities.

STUDENT MORTALITY BY SIZE OF STUDENT BODY

Another question of importance is whether student mortality was greater in universities with large student bodies than in those with small student bodies.

Table 6 is designed to compare the extent of student mortality in universities having student populations of different sizes. The table is drawn up along the same plan as the preceding table. The numbers of institutions and students are given for each classification, together with the percentages of students following the several paths through their collegiate careers.

TABLE 6.—Comparison of student mortality, according to size of student bodies of universities

Size of student bodies	Number of institutions	Number of students	Percentage of students					
			Leaving university during or at end of 4-year period without obtaining degree	Obtaining degree during or at end of 4-year period	Continuing beyond 4-year period without leaving university	Transferring to some other institution upon leaving university	Returning at later date to continue work after leaving university	Leaving university without transferring or returning at later date
1	2	3	4	5	6	7	8	9
Fewer than 2,000 students...	6	1,718	60.9	36.9	2.2	8.1	9.1	43.7
2,000 to 2,999 students...	6	3,134	63.6	31.1	5.3	13.6	10.5	39.5
3,000 to 3,999 students...	5	3,072	69.7	25.8	4.5	13.8	8.9	47.0
4,000 or more students...	8	7,611	58.7	32.9	8.4	7.7	4.0	47.0

Apparently, the size of student bodies did not seem to have any material relationship to gross mortality in the universities. As revealed in column 4 of table 6, the universities with 4,000 or more students had the lowest percentage of students leaving on a gross basis. At the same time the universities with 3,000 to 3,999 students had the highest percentage. In other words, both the highest and the lowest gross mortality existed among the institutions with the larger student bodies. With respect to net mortality, a different situation is discovered, as shown in column 9 of table 6. The universities with 2,000 to 2,999 students had the lowest percentage. In this instance, the institutions with the smaller student bodies had the lowest mortality, indicating a probable relationship between the size of student bodies and net mortality.

A higher proportion of students obtained degrees during or at the end of the 4-year period in the universities with fewer than 2,000 students or those with the smaller student bodies. In the same institutions the lowest percentage of students continued beyond the 4-year period. The highest

percentage of the latter students is found in universities having 4,000 or more students with an excess of 6.2 over that in the universities having fewer than 2,000 students. The universities with medium-sized student bodies had the greater percentage of students transferring to other institutions. Of significance is the fact that in the universities with the larger student bodies the lowest percentage of students returned at a later date to continue their work after leaving the institutions.

STUDENT MORTALITY BY COLLEGE OR SCHOOL

In undertaking to determine the extent to which student mortality differed in the various colleges or professional schools two methods were adopted.

The first consisted of obtaining totals of the students for the same college or school in all the universities conducting such college or school. These totals were then used for computing percentages showing mortality in the particular college or school as a whole. The second method provided for the listing of the universities conducting the same college or school and presenting the mortality for each individual college or school.

Table 7 exhibits the results obtained under the first method. The several colleges or schools are shown together with the number of institutions having each college or school and the total students for each college or school. Percentages of the students leaving in the several years are given in the table along with percentages relating to the other phases of mortality, as in the other tables. The colleges or schools are ranked according to the extent of gross mortality existing in them, the college or school with the highest mortality being listed first and the others in successive order.

The various colleges or schools differed rather extremely in extent of student mortality. The rate of gross student mortality in arts and sciences with the highest percentage of students leaving, was almost twice that of law,¹¹ with the lowest percentage, according to column 8 of table 7. In the same manner, the gross mortality in commerce and business with the second highest percentage of students leaving was almost one third greater than that of education with the second lowest percentage.

Analogous differences existed in the net mortality, although a change occurred in the college or school having the highest percentage of students leaving on this basis. Home economics, as shown by column 13 of table 7, had the highest net mortality with commerce and business again ranking second. The rate of net student mortality in both these colleges or schools was more than twice that of the school of law which also had the lowest percentage of students leaving on a net basis.

¹¹ A possible explanation of the low mortality in law is that the students are required to pursue a preliminary 2-year college course before admission and, therefore, have previously demonstrated ability to perform college work. Moreover, the law students are not confronted with the problem of adjusting to a new environment to the same extent as students in the other colleges or schools. Professional motivation may also be another factor in explaining the lower mortality.

TABLE 7.—Differences in student mortality by college or school

College or school	Number of institutions	Number of students	Percentage of students									
			Leaving university during or at end of—				Leaving university during or at end of 4-year period without obtaining degree	Obtaining degree during or at end of 4-year period	Continuing beyond 4-year period without leaving university	Transferring to some other institution upon leaving university	Returning at later date to continue work after leaving university	Leaving university without transferring or returning at later date
			Freshman, year	Sophomore year	Junior year	Senior year						
1	2	3	4	5	6	7	8	9	10	11	12	13
Arts and sciences.....	20	6,255	36.6	19.1	8.2	3.1	67.0	28.8	4.2	13.3	8.2	45.5
Commerce and business.....	13	2,027	37.2	17.1	8.1	4.5	66.9	24.4	8.7	6.7	4.6	55.6
Home economics.....	6	435	27.9	24.8	8.9	3.2	64.8	30.6	4.6	9	6.4	57.5
Engineering.....	16	2,547	34.8	15.4	7.4	4.1	61.7	30.2	8.1	9.8	6.8	45.1
Agriculture.....	12	969	32.8	14.6	7.3	5.2	59.9	33.7	6.4	5.2	6.9	47.8
Education.....	11	834	29.1	13.0	6.6	4.2	52.9	41.8	5.3	4.1	6.5	42.3
Law ¹	3	121	-----	22.6	6.2	6.2	35.0	53.7	11.3	1.7	6.6	26.7

¹ Curriculum in law is 3 years in length.

A graphic representation of both gross and net mortality in the various colleges or schools is made in the following figure.

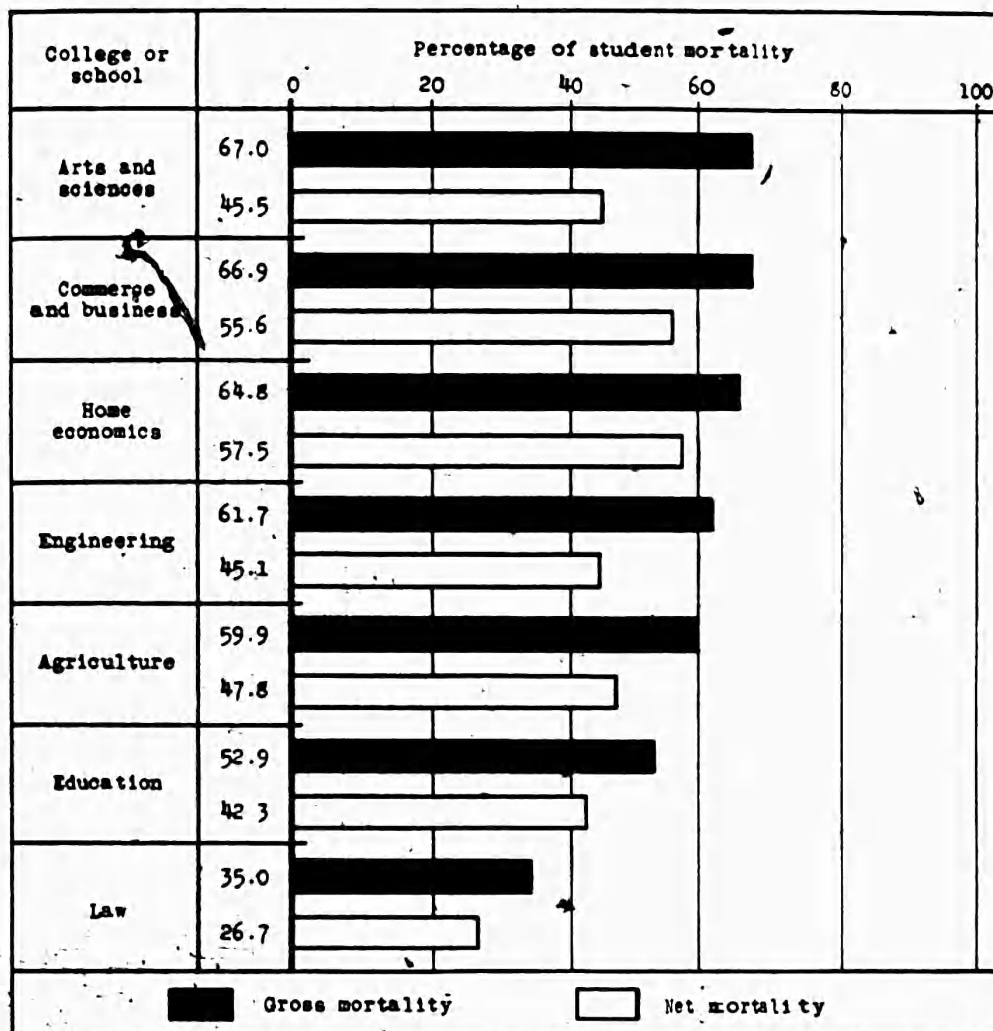


FIGURE 6.—Student mortality by college or school.

The proportion of students leaving the various colleges or schools during or at the end of the several years presents some interesting variations, as shown by the percentages in columns 4, 5, 6, and 7 of table 7. Commerce and business had slightly more than one out of every three students leaving in the freshman year as compared with less than one out of every four students in the first year of law.¹³ Home economics was among the colleges or schools having a lower percentage of students leaving in the freshman year. This college or school, however, had the highest percentage of students

¹³ The percentage of students leaving the school of law in the first year is shown under the sophomore year in column 5 of table 7 rather than under the freshman year. This arrangement was adopted because this school's curriculum is only 3 years in length.

leaving in the sophomore year. Almost one-fourth of the students in home economics left in the sophomore year. The school of law led all the other colleges or schools in the percentage of students leaving during or at the end of the senior year when they were about to graduate.

Commerce and business had the lowest percentage of students obtaining degrees during or at the end of the regular 4-year period, as indicated by column 9 of table 7. Arts and sciences had the second lowest percentage. In these two colleges or schools the percentage of students obtaining degrees was approximately one half that in the school of law which had the highest percentage. Education ranked high in students obtaining degrees within the regulation time.

Further variations are found among students continuing beyond the 4-year period, transferring to some other institution, and returning at a later date to continue their work, as disclosed in columns 10, 11, and 12 of table 7. Approximately 1 out of every 9 students in law continued beyond the 3-year period in contrast to about 1 out of every 25 students in arts and sciences and in commerce and business. The proportion of students transferring to some other institution in arts and sciences exceeded that of the other colleges or schools from 3.5 to 12.2 percent. Approximately equal percentages of students returned at a later date to continue work in all the colleges or schools with the exception of arts and sciences and of commerce and business. Arts and sciences had a slightly higher percentage. The percentage was low for commerce and business, being about one-half that of arts and sciences.

Under the second method of showing the student mortality in the individual colleges or schools, a separate table has been prepared for arts and sciences, commerce and business, education, home economics, engineering, agriculture, and law. In each table are given the universities conducting the particular college or school together with the number of students and the percentages for gross and net student mortality including other classifications. Individual colleges or schools registering fewer than 20 students have been omitted since distortion of the percentages usually occurs when there are small numbers of cases. Attention must also be called to the fact that a number of universities did not include all their colleges or schools in this study, only certain ones being selected. This explains the absence in several of the tables of the names of universities known to conduct the particular college or school.

Arts and sciences.—Of the 25 universities, there were 20 with arts and sciences colleges. Eleven were under public control and nine under private control. The total students who originally registered for a degree in the colleges amounted to 6,255, of which 3,564 were men and 2,691 women students. Table 8 presents the data on student mortality for these colleges.

TABLE 8.—Student mortality by sex in 20 colleges of arts and sciences classified by type of control

Institution	Num-ber of stu-dents	Percentage of students												Leaving university without transferring or returning at later date		
		Leaving university during or at end of 4-year period without obtaining degree			Obtaining degree during or at end of 4-year period			Continuing beyond 4-year period without leaving university			Transferring to some other institution upon leaving university			Returning at later date to continue work after leaving university		
		Men	Wom-en	Total	Men	Wom-en	Total	Men	Wom-en	Total	Men	Wom-en	Total	Men	Wom-en	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
PUBLICLY CONTROLLED																
New Mexico College of Agriculture and Mechanic Arts.....	44	77.8	69.4	72.7	11.1	26.9	20.5	11.1	3.7	6.8	11.2	19.2	15.9	27.7	15.4	20.5
Oklahoma Agricultural and Mechanical College 1.....	144	80.9	72.0	77.8	7.4	12.0	9.0	11.7	16.0	13.2	9.5	4.9	8.5	16.0	16.0	16.0
Pennsylvania State College.....	188	49.0	31.7	45.2	51.0	68.3	54.8	5	27.0	2	25.4	16.5	20.7	15.0	11.6	13.2
University of Colorado.....	455	78.4	67.8	72.4	21.1	32.2	27.0	10.8	5	10.8	25.3	20.3	25.3	32.6	39.7	38.9
University of Florida.....	221	72.4	72.4	72.4	16.8	19.2	16.8	7.5	5.3	6.7	20.1	15.8	18.4	14.5	15.0	14.5
University of Illinois.....	896	70.3	75.5	72.7	22.2	25.9	20.9	7.5	1.4	6.9	5.0	7.5	6.2	7.9	10.8	9.2
University of Louisville.....	260	82.1	72.5	77.7	17.9	25.9	21.5	6.2	1.4	3.7	14.3	9.1	12.2	6.1	12.1	8.5
University of Mississippi.....	82	46.9	60.7	52.4	46.9	39.3	43.9	3.0	8.8	5.0	16.7	8.8	14.0	9.6	2.9	7.3
University of Tennessee.....	300	86.9	74.5	82.7	10.1	16.7	12.3	1.9	2.1	2.0	26.7	26.8	26.7	5.0	1.0	3.0
University of Toledo.....	198	86.2	81.4	83.8	11.9	16.5	14.2	7.6	6.1	7.0	17.3	12.7	15.9	49.7	52.3	50.6
University of Wyoming.....	99	78.8	72.7	76.8	13.6	21.2	16.2	7.6	6.1	7.0	17.3	12.7	15.9	49.7	52.3	50.6
Total.....	3,887	73.8	71.5	72.9	20.9	24.6	22.4	5.3	3.9	4.7	17.3	12.7	15.9	49.7	52.3	50.6
PRIVATELY CONTROLLED																
Brigham Young University.....	373	70.5	69.0	70.0	29.5	31.0	30.0	6.3	7.2	6.6	9	7.5	3.5	23.3	16.4	20.6
Howard University (Negro).....	150	69.5	74.6	71.4	24.2	18.2	22.0	6.3	7.2	6.6	9	7.5	3.5	24.2	29.1	26.0
Rutgers University.....	529	50.0	41.9	45.4	50.0	58.1	54.6	10.6	18.8	15.3	10.6	18.8	15.3	5.8	2.6	3.9
Syracuse University.....	399	55.9	38.4	48.2	44.1	61.6	51.8	16.2	9.0	13.0	16.2	9.0	13.0	3.6	2.3	2.3
Tulane University of Louisiana.....	445	80.0	61.6	70.0	20.0	38.4	30.0	37.5	16.4	25.8	37.5	16.4	25.8	11.5	1.2	5.8
University of Chicago.....	723	60.7	66.9	63.3	23.4	24.9	24.1	15.9	8.2	13.6	20.3	25.9	23.4	19.6	15.5	17.8
University of Denver.....	286	72.7	67.1	69.6	22.7	31.6	27.6	4.6	1.3	2.8	30.8	50.0	31.1	4.7	3.3	3.5
University of Detroit.....	122	85.0	100.0	85.2	14.2	37.5	14.2	6.0	5.2	5.6	2.7	1.6	2.1	5.8	5.7	5.7
Washington University.....	341	69.8	52.3	62.8	24.2	37.5	31.6	6.0	5.2	5.6	2.7	1.6	2.1	5.4	2.3	2.3
Total.....	3,368	64.9	57.5	61.9	29.3	39.9	34.3	6.0	2.6	3.9	11.4	10.6	11.1	12.5	6.6	9.7

¹ College is called Science and Literature College.

² These percentages would be lower had percentages of students transferring to some other institution or returning at later date been furnished.

Differences in gross student mortality among the individual arts and sciences colleges were more pronounced than among the individual universities with all students counted. For example, the percentages of students leaving the arts and sciences colleges ranged from 45.2 to 85.2, as indicated by column 5 of table 8. For the individual universities the range was from 42.2 to 79.5 percent, as shown in the earlier part of this chapter. Thus, the percentage of students leaving the arts and sciences college with the lowest gross mortality was 3.0 in excess of that of the individual university with the lowest gross mortality. Correspondingly, the arts and sciences college with the highest gross mortality had a percentage of students leaving the institution which was 5.7 greater than that in the university with the highest gross mortality.

Making a similar comparison for net mortality, it is found that the percentages of students leaving the individual arts and sciences colleges without either transferring or returning at a later date varied from 26.2 to 62.3, as disclosed by column 20, table 8.¹³ Among the individual universities the percentage varied from 26.9 to 62.5. The net mortality, therefore, in the arts and sciences colleges having the highest and lowest percentages was approximately the same as in the universities having the highest and lowest percentages.

Of no little interest are the striking differences shown in table 8 between arts and sciences colleges in publicly controlled and privately controlled universities. The gross mortality in the former was 11 percent higher than in the latter. Similarly, the net mortality for arts and sciences colleges in publicly controlled universities exceeded that for the colleges in privately controlled universities by 9.5 percent. This indicates that about 10 more students per 100 on both a gross and net basis left the arts and sciences colleges in publicly controlled than in privately controlled universities. The percentage of students obtaining degrees during or at the end of the 4-year period was 11.8 greater in the colleges conducted under private control than in those under public control.

Commerce and business.—Thirteen of the universities had colleges or schools of commerce and business,¹⁴ of which seven were publicly controlled and six privately controlled. The students registering for a degree in the colleges or schools consisted of 1,726 men and 301 women, or a total of 2,027. In table 9 are given the mortality figures for each of the colleges or schools.

¹³ This range does not include the percentages for the arts and sciences colleges which did not furnish information on students transferring to some other institution or returning at a later date to continue their work since these percentages were not regarded as representative of the true net mortality.

¹⁴ These colleges or schools had various titles, such as college of business administration, school of commerce and finance, or college of economics and business, in the different universities.

TABLE 9.—Student mortality by sex in 13 colleges or schools of commerce and business classified by type of control

Institution	Num-ber of stu-dents	Percentage of students																					
		Leaving university during or at end of 4-year period with-out obtaining degree				Obtaining degree during or at end of 4-year period				Continuing beyond 4-year period without leaving university				Transferring to some other institution upon leaving university				Returning at later date to continue work after leaving university				Leaving university without transferring or returning at later date	
		Men	Wom-en	Total	Men	Wom-en	Total	Men	Wom-en	Total	Men	Wom-en	Total	Men	Wom-en	Total	Men	Wom-en	Total	Men	Wom-en		
1	3	4	8	6	7	13	9	10	11	12	13	14	15	16	17	18	19	20					
PUBLICLY CONTROLLED																							
Oklahoma Agricultural and Me- chanical College.....	182	79.4	85.4	80.8	15.7	12.2	14.8	4.9	2.4	4.4	10.4	10.4	15.9	15.9	179.4	185.4	180.8						
University of Florida.....	201	66.7	66.7	66.7	19.9	25.0	41.6	13.4	25.0	39.9	5.2	4.9	10.1	15.9	40.4	50.0	47.6						
University of Georgia.....	101	54.6	50.0	54.3	42.3	31.1	41.6	3.1	25.0	3.9	5.2	4.9	2.1	4.7	47.3	50.0	47.6						
University of Illinois.....	424	70.9	80.4	71.9	20.9	19.5	20.8	8.2	7.3	7.3	3.5	2.2	3.3	168.6	167.4	178.2	168.6						
University of Mississippi.....	52	72.3	80.0	73.1	27.7	20.0	26.9	5.4	6.9	7.0	10.6	9.6	8.5	7.7	53.2	80.0	55.8						
University of Toledo.....	57	87.8	93.3	88.8	6.8	6.7	6.7	7.1	6.9	7.0	8.1	6.7	16.2	13.5	63.5	93.3	68.6						
University of Wyoming.....	89	82.2	79.3	80.7	10.7	13.8	12.3	7.1	6.9	7.0	8.1	6.7	3.6	1.7	178.6	179.3	179.0						
Total.....	1,196	71.3	83.1	77.7	21.0	15.0	20.3	7.7	2.9	7.1	5.2	7.7	4.6	4.6	60.8	81.4	63.5						
PRIVATELY CONTROLLED																							
Boston University.....	326	58.6	64.5	59.2	13.6	19.4	14.1	27.8	16.1	26.7	4.4	3.2	4.3	4.1	6.5	50.1	54.8	50.6					
Syracuse University.....	256	43.8	48.3	45.4	56.3	51.7	54.6	21.9	21.9	21.9	10.5	12.9	11.3	2.9	2.4	30.4	33.0	31.3					
Tulane University of Louisiana.....	96	78.7	71.4	78.1	21.3	28.6	21.9	21.9	21.9	21.9	12.4	14.3	12.5	11.2	10.4	55.1	57.1	55.2					
University of Denver.....	81	86.7	80.8	85.2	13.3	9.1	12.3	15.7	9.1	2.5	18.3	4.7	14.8	9.6	33.3	168.4	176.1	170.4					
University of Detroit.....	100	63.9	83.4	65.0	36.1	16.6	35.0	15.7	9.1	14.6	17.0	16.7	17.0	9.6	33.3	37.3	33.4	37.0					
Washington University.....	62	62.7	18.2	54.8	21.6	72.7	30.6	15.7	9.1	14.6	17.0	16.7	17.0	9.6	33.3	37.3	33.4	37.0					
Total.....	921	60.8	54.9	59.9	27.4	39.1	39.4	11.8	5.0	10.7	9.1	9.3	9.1	4.6	3.7	46.9	42.9	46.2					

¹ These percentages would be lower, had percentage of students transferring to some other institution or returning at later date been furnished.

The same wide variations existed among the individual colleges or schools of commerce and business. Differences in mortality for such colleges or schools in publicly controlled as compared with privately controlled universities were pronounced, being greater even than in the case of arts and sciences. The gross mortality for commerce and business colleges or schools under public control was 12.8 percent higher than for those under private control, according to column 5 of table 9. Net mortality shows a still greater disparity. The percentage of students on a net basis leaving the publicly controlled colleges or schools of commerce and business was higher by 17.3 than that of students leaving the privately controlled colleges or schools, as revealed by column 20 of table 9.

Of particular interest are the differences in mortality between the college of commerce and business and the college of arts and sciences within the same university. These differences are readily obtainable by comparing the percentages in tables 8 and 9. For instance, the commerce and business college in the University of Florida had a net mortality of 40.4 percent. The net mortality for the college of arts and sciences in this same university was 32.6 percent. The percentage of students on a net basis leaving the University of Florida's commerce and business college, therefore, exceeded that of its arts and sciences college by 7.8. An opposite situation is discovered at Syracuse University. The net mortality for the college of commerce and business at Syracuse University was 31.3 percent and for arts and sciences 32.9 percent. In contrast with the University of Florida, the percentage of students on a net basis leaving Syracuse University's college of arts and sciences was 1.6 in excess of that of its college of commerce and business.

Education.—Colleges or schools of education were operated by 11 universities, 7 being publicly controlled and 4 privately controlled. There was a total of 834 students who originally registered for a degree, of which 401 were men and 433 women students. Mortality data on each college or school are presented in table 10.

The rate of student mortality in education when all such colleges or schools in the universities were combined has been previously shown to be relatively low. This is further substantiated by the percentages for both gross and net mortality in the individual colleges or schools, as contained in columns 5 and 20 of table 10. In 6 out of the 11 colleges or schools of education, the percentage of students leaving ranged from 50 to 34.6 on a gross basis. Likewise, in five of the colleges or schools, the percentage of the students leaving ranged from 34.5 to 24.3 on a net basis.

Since there were slightly more women than men students registered in both publicly and privately controlled colleges or schools of education, differences in mortality by sex are of interest. The percentages in columns 3, 4, 18, and 19 of table 10 throw light on this question. The gross mortality in the publicly controlled colleges or schools of education was 12 percent higher for men than for women students. In the privately controlled colleges or schools of education, this situation was reversed, the gross mortality for women students exceeding that of men students by 5.2 percent. Approximately the same condition prevailed with respect to net mortality. The percentage of men students on a net basis leaving the publicly controlled colleges or schools of education exceeded that for women students by 8.6, while the percentage of women students leaving those under private control was greater than that of the men students by 7.2.

Engineering.—There were 16 universities conducting schools of engineering, of which 10 were publicly controlled and 6 privately controlled. A total of 2,547 students registered in 1931–32 for a degree, 2,535 being men and 12 being women students. Because of the small number of women students, percentages for them were not computed. Figures showing the mortality for each of these schools are contained in table 11.

Engineering, with the schools in all universities combined, has already been shown to have the fourth highest mortality on both a gross and net basis. There was, however, a narrower range in the percentages of students leaving the individual schools of engineering than for most of the other colleges or schools. This point may be illustrated by a comparison of engineering and education, the latter having a lower general mortality than engineering.

The percentage of students leaving the individual school of engineering with the largest gross mortality was 80.2 and the percentage for the school with the smallest gross mortality was 43.9, according to column 3 of table 11. A percentage difference of 36.3 exists consequently between the two engineering schools with the largest and smallest gross mortality. Corresponding figures for education show percentages of 85.4 and 34.6, respectively, for the two colleges or schools of education with the largest and smallest gross mortality, as indicated in column 5 of table 10. In this instance, the percentage difference is 50.8. It is evident, therefore, that the range of the percentage differences for the individual colleges or schools of education is considerably greater than that for the individual schools of engineering. Practically the same situation is found with regard to net mortality, except that the percentage differences are greatly reduced.

Agriculture.—Colleges of agriculture were operated in 12 universities, 10 being publicly controlled and 2 privately controlled. The total students originally registering for degrees numbered 969, of which 904 were men and

65 women students. No segregation of students by sex has been made because of the proportionately small number of women students represented. Table 11 presents mortality data on each of these colleges of agriculture.

TABLE 11.—Student mortality in 16 colleges or schools of engineering

Institution	Number of students	Percentage of men students					
		Leaving university during or at end of 4-year period without obtaining degree	Obtaining degree during or at end of 4-year period	Continuing beyond 4-year period without leaving university	Transferring to some other institution upon leaving university	Returning at later date to continue work after leaving university	Leaving university without transferring or returning at later date
1	2	3	4	5	6	7	8
PUBLICLY CONTROLLED							
Iowa State College.....	348	59.2	22.7	18.1	.....	6.9	152.3
New Mexico College of Agriculture and Mechanic Arts.....	42	66.7	23.8	9.5	11.9	19.0	35.8
Oklahoma Agricultural and Mechanical College.....	¹ 180	74.4	16.7	² 8.9	.....	11.1	¹ 63.3
Pennsylvania State College.....	¹ 231	46.7	53.3	.....	6.9	.....	¹ 39.8
University of Colorado.....	¹ 157	64.3	35.0	.....	14.6	11.5	38.2
University of Florida.....	124	65.3	18.5	16.2	7.3	14.5	43.5
University of Illinois.....	257	57.6	24.5	17.9	2.7	.....	¹ 54.9
University of Tennessee.....	107	79.5	9.3	11.2	.....	17.8	¹ 61.7
University of Toledo.....	107	79.5	11.2	9.3	13.1	18.7	47.7
University of Wyoming.....	56	66.1	23.2	10.7	.....	1.8	¹ 64.3
Total.....	1,609	62.9	28.0	11.1	4.6	7.9	50.4
PRIVATELY CONTROLLED							
Rensselaer Polytechnic Institute.....	430	50.5	49.5	.....	21.8	1.9	26.8
Rutgers University.....	57	43.9	56.1	.....	10.5	5.3	28.1
Tulane University of Louisiana.....	¹ 121	80.2	19.8	.....	18.2	8.3	53.7
University of Denver.....	¹ 44	70.5	20.4	9.1	18.2	4.6	47.7
University of Detroit.....	168	67.9	22.0	10.1	27.3	12.5	28.1
Washington University.....	¹ 118	61.9	31.3	6.8	.....	.9	¹ 61.0
Total.....	938	59.4	37.5	3.1	17.6	4.8	37.0

¹ This percentage would be lower, had percentage of students transferring to some other institution or returning at later date been furnished.
² Includes 3 women students.

¹ Includes 1 woman student.
² Includes 2 women students.
³ Includes 6 women students.

The general mortality picture on both a gross and net basis for the individual colleges of agriculture does not differ in any large degree from that of the other colleges and schools except in one aspect. Colleges of agriculture had a higher percentage of students obtaining degrees during or at the end of the 4-year period.

There were 33.3 percent of the students in publicly controlled colleges of agriculture who obtained their degrees in 4 years, as shown by column 4 of table 12. The percentage for publicly controlled commerce and business colleges or schools was 20.2, for arts and sciences 22.4, for engineering 26.0, and for education 41.7. Outside of education, the publicly con-

trolled colleges of agriculture had a percentage of students obtaining degrees within the regular period exceeding those of similarly controlled colleges or schools in the other fields from 13.1 to 7.3. The comparison has been made for publicly controlled rather than privately controlled colleges because of the small number of privately controlled colleges of agriculture.

TABLE 12.—Student mortality in 12 colleges of agriculture

Institution	Number of students	Percentage of men students					
		Leaving university during or at end of 4-year period without obtaining degree	Obtaining degree during or at end of 4-year period	Continuing beyond 4-year period without leaving university	Transferring to some other institution upon leaving university	Returning at later date to continue work after leaving university	Leaving university without transferring or returning at later date
1	2	3	4	5	6	7	8
PUBLICLY CONTROLLED							
Iowa State College.....	154	66.2	18.2	15.6		8.4	¹ 57.8
Massachusetts State College.....	¹ 67	38.8	61.2			14.9	² 23.9
New Mexico College of Agriculture and Mechanic Arts.....	22	68.2	31.8		4.5	18.2	45.5
Oklahoma Agricultural and Mechanical College.....	88	60.2	34.1	5.7		17.0	¹ 43.2
Pennsylvania State College.....	³ 139	53.9	46.1		11.5		⁴ 42.4
University of Florida.....	51	62.7	35.3	2.0	7.8	23.5	31.4
University of Georgia.....	60	41.7	45.0	13.3	15.0	5.0	21.7
University of Illinois.....	⁴ 209	61.3	28.7	10.0	4.8		⁵ 56.5
University of Tennessee.....	44	75.0	20.5	4.5		4.5	¹ 70.5
University of Wyoming.....	¹ 43	79.1	18.6	2.3		4.6	¹ 74.5
Total.....	877	59.6	33.3	7.1	4.6	6.9	48.1
PRIVATELY CONTROLLED							
Rutgers University.....	62	54.8	45.2		6.4	8.1	40.3
Syracuse University.....	⁶ 30	76.6	23.4		20.0	3.3	53.3
Total.....	92	65.0	38.0		10.0	6.8	44.6

¹ Includes 4 women students.

² This percentage would be lower, had percentage of students transferring to some other institution or returning at later date been furnished.

³ Includes 2 women students.

⁴ Includes 37 women students.

⁵ Includes 19 women students.

⁶ Includes 3 women students.

Approaching the question from the viewpoint of differences in individual colleges or schools, analogous results are obtained. The highest percentage of students obtaining degrees in any college of agriculture was 61.2. For commerce and business the highest percentage in any college or school was 54.6, for arts and sciences 54.8, for engineering 56.1, and for education 65.4. Except for education, the individual college or school with the highest percentage of students obtaining degrees is found in agriculture. On the other hand, the lowest percentage of students obtaining degrees in an individual college of agriculture was 18.2 as compared with 6.7 in commerce and business, 7.3 in education, 9.0 in arts and sciences, and 9.3 in

engineering. Consequently in the college of agriculture with the lowest percentage of students obtaining degrees the percentage was higher by 11.5 to 8.9 than those of corresponding college or school in any of the other fields.

Home economics.—Colleges or schools of home economics were conducted by six universities, five of which were publicly controlled and one privately controlled. The total number of students originally registering in these colleges or schools was 435. All were women students. Mortality data on each college or school are contained in table 13.

TABLE 13.—Student mortality in 6 colleges or schools of home economics

Institution	Number of students	Percentage of women students					
		Leaving university during or at end of 4-year period without obtaining degree	Obtaining degree during or at end of 4-year period	Continuing beyond 4-year period without leaving university	Transferring to some other institution upon leaving university	Returning at later date to continue work after leaving university	Leaving university without transferring or returning at later date
1	2	3	4	5	6	7	8
PUBLICLY CONTROLLED							
Iowa State College.....	194	65.9	26.8	7.3		5.7	60.2
Massachusetts State College.....	32	59.4	40.6			3.2	56.2
Oklahoma Agricultural and Mechanical College.....	63	74.6	20.6	4.8		15.9	58.7
University of Georgia.....	24	41.8	52.2				41.8
University of Tennessee.....	61	80.3	14.8	4.9		6.5	73.8
Total.....	374	67.7	27.0	8.8		7.0	66.7
PRIVATELY CONTROLLED							
Syracuse University.....	61	47.5	52.5	4.0	6.5	3.3	37.7

¹ This percentage would be lower, had percentage of students transferring to some institution or returning at later date been furnished.

A comparatively high mortality existed among students in the individual colleges or schools of home economics, as evidenced by columns 3 and 8 of table 13. With two exceptions in the colleges or schools, the percentages of gross mortality were between 59.4 to 80.3. Because information was not furnished by five universities on the percentage of home economics students transferring to some other institution or returning at a later date to continue their work, the figures for net mortality are not entirely exact. Assuming that the discrepancies in all probability offset each other for the several colleges or schools, the net mortality is also found to be on a high plane. Except in two instances the percentage of students on a net basis leaving the individual colleges or schools ranged from 56.2 to 73.8.

Of significance was the rather small proportion of students in home economics continuing beyond the 4-year period without leaving the university, as shown by column 5 of table 13. Three of the colleges or schools did not report any such students. About 5 out of every 100 students continued beyond 4 years in two of the others and about 7 out of every 100 students in one.

Law.—Six of the universities had schools of law. The number of students originally registering in three of them, however, was so small that the percentages showing mortality were unduly skewed. For this reason, only three of the schools were considered. Of the latter schools, two were in publicly controlled and one in privately controlled universities. There was a total of 177 students represented, 172 being men and 5 women students. Table 14 presents the data on mortality for each school. Students were not segregated as to sex because of the few women students.

TABLE 14.—Student mortality in 3 colleges of law

Institution	Number of students	Percentage of men students					
		Leaving university during or at end of 3-year period without obtaining degree	Obtaining degree during or at end of 3-year period	Continuing beyond 3-year period without leaving university	Transferring to some other institution upon leaving university	Returning at later date to continue work after leaving university	Leaving university without transferring or returning at later date
1	2	3	4	5	6	7	8
PUBLICLY CONTROLLED							
University of Florida.....	73	35.6	56.2	8.2	4.1	13.7	17.8
University of Illinois.....	56	16.1	58.9	25.0	—	—	16.0
Total.....	129	27.1	57.4	15.5	2.3	7.7	17.1
PRIVATELY CONTROLLED							
Tulane University of Louisiana.....	48	56.2	43.8	—	—	4.2	52.0

¹ This percentage would be lower, had percentage of students transferring to some other institution or returning at later date been furnished.

² Includes 5 women students.

The individual colleges of law showed an extremely low rate of student mortality, as indicated by the percentages contained in columns 3 and 8 of table 14. Particularly is this true of the two colleges in publicly controlled universities. Approximately one out of every four students on a gross basis left these colleges and one out of every six students on a net basis.

The opportunity now presents itself of comparing the mortality in a series of colleges or schools within the same university. The University of

Illinois has been selected for this purpose because of the larger number of different colleges¹⁵ comprising that institution. At the University of Illinois approximately 16 out of every 100 students left its college of law on a gross basis in contrast with 35 out of every 100 for the college of education, 58 out of every 100 for the college of engineering, 61 out of every 100 for the college of agriculture, and 72 out of every 100 for both the college of arts and sciences and the college of commerce. The gross mortality in the university's colleges of arts and sciences and of commerce, therefore, was almost five times that in its college of law. Although not as great, similar differences are found with respect to net mortality.

TRANSFER STUDENTS WITHIN UNIVERSITY

In addition to students transferring out of the university to some other institution, another type of transfer students comprises those who transferred from one college to another within the university.

The initial plan of this study provided for the collection of separate data on transfer students of this type by each institution. By such an arrangement it was intended to ascertain whether there was a higher mortality among the students transferring from one college or school within the university than among the students who remained in the same college or school throughout their attendance at the university. Information on other phases of mortality was to be obtained also regarding these transfer students.

Of the 25 universities, only 6 furnished data in usable form on transfer students within the university. Table 15 lists the names of these institutions together with the number of students originally registering, percentages leaving during the different years, and the percentage following the several paths through their collegiate career. Exactly the same subheadings are utilized as in the tables for nontransfer students throughout this chapter so that the figures showing gross and net mortality are comparable.

The mortality among students transferring from one college or school to another within the university was generally lower than among students remaining in the same college or school without transferring. This was the case both with respect to gross and net mortality.

The percentage of transfer students on a gross basis leaving the universities was 53.2, as indicated by column 7 of table 15. Comparing this figure with those showing gross mortality for students in the several colleges or schools as contained in column 8 of table 7, it is discovered that percentage of transfer students who left the universities was 13.8 less than

¹⁵ The different major divisions in the University of Illinois are all designated as colleges rather than schools.

that for regular students in arts and sciences, 13.7 less than in commerce and business, 11.6 less than in home economics, 8.5 less than in engineering, and 6.7 than in agriculture.¹⁶ The gross mortality for students in education was slightly higher than that of the transfer students.

Continuing the comparison in a similar manner for net mortality, there were 35.8 percent of the transfer students on a net basis leaving the universities, as indicated by column 12 of table 15. This percentage was 21.7 percent less than that for the regular students in home economics, 19.8 percent less than in commerce and business, 12 percent less than in agriculture, 9.7 percent less than in arts and sciences, 9.3 percent less than in engineering, and 6.5 percent less than in education, as shown by the percentages in column 13 of table 7.

Of singular interest in connection with the transfer students is the length of time they remained before leaving the universities. It has already been pointed out that in general a far larger proportion of students left during or at the end of the freshman year with a progressive decline in the proportions for the sophomore, junior, and senior years. An opposite situation is disclosed with respect to transfer students. In the case of such students, 5.7 percent more left the university in the sophomore year than in the freshman year and a slightly higher percent in the junior than in the freshman year, as shown by the percentages at the bottom of columns 3, 4, and 5 of table 15. The percentage of transfer students leaving in their senior year is unusually large, exceeding those of regular students in the several colleges or schools by from 5.3 to 2.2 percent.

¹⁶ The college of law has been omitted because students entering this college do not as a rule transfer to other colleges or schools.

TABLE 15.—Mortality among students transferring from one college or school to another within university

Institution	Number of students	Percentage of students									
		Leaving university during or at end of				Leaving university during or at end of 4-year period without obtaining degree	Obtaining degree during or at end of 4-year period	Continuing beyond 4-year period without leaving university	Transferring to some other institution upon leaving university	Returning at later date to continue work after leaving university	Leaving university without transferring or returning at later date
		Freshman year	Sophomore year	Junior year	Senior year						
1	3	3	4	5	6	7	8	9	10	11	12
PUBLICLY CONTROLLED											
Oklahoma Agricultural and Mechanical College	56	17.9	33.9	23.2	5.3	80.4	16.1	3.5		7.1	73.3
Pennsylvania State College	221	5.9	14.0	6.8	6.8	33.5	66.5		2.7	9.9	29.9
University of Florida	132	19.0	15.9	16.7	6.0	57.6	13.6	28.8	9.2	24.2	24.2
Total	409	11.7	17.4	13.3	6.3	47.7	42.5	9.8	4.4	9.3	34.0
PRIVATELY CONTROLLED											
Boston University	44	9.0	20.5	15.9	27.3	72.7	15.9	11.4		13.6	59.1
Tulane University of Louisiana	40	7.5	20.0	25.0	10.0	62.5	37.5		5.0	30.0	27.5
University of Denver	33	39.4	34.5	9.1	6.1	84.9	15.1		21.2	27.3	36.4
Total	117	17.1	23.0	17.1	15.4	72.6	23.1	4.3	7.7	23.1	41.8
Grand total	526	12.9	18.6	13.3	8.4	63.2	28.3	8.6	5.1	12.3	35.8

[CHAPTER III.]

Causes of Student Mortality

THE DISCOVERY of the causes why the various students involved in this study left the universities was practically impossible with a satisfactory degree of reliability.

Several reasons account for this situation. First, student and personnel records of a number of the universities made no provision for recording the causes of student withdrawals. Second, even in instances where such provision was made, many students left the universities at the end of one academic year and failed to return at the opening of the following fall term without any notification to the institution.

In order to obtain as accurate information as possible, 12 universities¹ sent questionnaires to the former students. Although the causes responsible for a considerable number of students leaving the universities were secured by this method, the returns in general were far from complete. Moreover, many of the causes given were intangible in character. Such terms as "unable to concentrate on work" or "impossible to coordinate efforts" in describing the reason for leaving college cannot be regarded as sufficiently specific or definite. Statements of causes of this character were in many instances based on subjective opinions of officials in the institutions.

Notwithstanding these difficulties, data on the more tangible causes of student mortality in 24 universities were collected for a fairly large proportion of the students, one university being unable to furnish information. These data are exhibited in table 16. The number of students leaving each of the universities is presented first, the figures being on a gross mortality basis. The seven most common causes and the percentages of students leaving for each cause are then given. Included in the table also are categories for miscellaneous causes and unknown causes for which percentages are shown. The table is so arranged as to segregate the universities by type of control and the students by sex.

¹ For the names of these universities, see footnote 4, ch. I.

A total of 9,305 students left the 24 universities, 6,652 being men and 2,653 being women students. Of the total, 5,872 left the publicly controlled universities and 3,433 the privately controlled. The number of students leaving the individual universities varied from 1,422 to 94.

Dismissal for failure in work.—One of the principal known causes responsible for the students leaving the universities was dismissal for failure in work. This would tend to indicate that the withdrawal of many of the students was compulsory rather than voluntary. In 13 of the universities a higher proportion of students left because of dismissal for failure in work than for any other single cause, as shown by a comparison of the percentages in column 5 and those in columns 8, 11, 14, 17, 20, and 23 of table 1.

Further substantiation of this situation is disclosed in the large percentages of the students leaving the individual universities for this cause. There was one university in which 46.9 percent, or almost half of the students leaving the institution, were dismissed for failure in work. In eight universities from 20 to 29 percent of the students left through this cause and in nine universities from 10 to 19 percent. Five universities had less than 10 percent while one reported that none of the students was dismissed for failure in work.

In the case of the latter universities with small percentages, it must be realized that the figures are not entirely representative. A practice prevailed in some of the institutions of allowing students in certain instances to resign of their own accord after being given notice of deficiency in their studies instead of dismissing them outright.

Comparing the publicly and privately controlled universities, proportionately more students were dismissed for failure in work from the former than from the latter institutions. About one out of every five students left the publicly controlled universities due to this cause in contrast with about one out of every six for the privately controlled universities.

Higher percentages of men than women students were dismissed for failure in work, according to columns 3 and 4 of table 16. This was true in every coeducational university with one exception. In five universities no women students were reported as leaving because of this reason. In nine others the percentage of men students who left on account of dismissal for failure in work exceeded that of women students from 20.1 to 10.2. The percentage of men students who left the publicly controlled universities for this cause was twice that of women students and about one-third more in the case of the privately controlled universities.

TABLE 16.—Causes of mortality among students by sex in 24 universities classified according to type of control

Institution	Number of students	Percentage of students leaving university because of —											
		Dismissal for failure in work			Dismissal for disciplinary causes			Financial difficulties			Death		
		Men	Women	Total	Men	Women	Total	Men	Women	Total			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
PUBLICLY CONTROLLED													
Iowa State College.....	457	31.2	17.7	27.4	1.8	0.8	1.5	30.6	23.1	28.4	0.6	1.5	0.9
Massachusetts State College.....	126	51.2	38.0	46.9	1.2	2.4	1.6	6.0	7.2	7.2			
New Mexico College of Agriculture and Mechanic Arts.....	97	2.9		2.1				27.1	33.3	28.8			
Oklahoma Agricultural and Mechanical College.....	608	12.2	1.9	8.7	2		2	10.8		9.6			
Pennsylvania State College.....	489	18.0	5.4	16.6	.5		.4	1.1	9.5	4.5			.5
University of Colorado.....	455	31.2	23.4	28.2	1.4	.6	1.4	10.7		10.7			.2
University of Florida.....	514	26.6		26.6	1.4			24.2	36.0	26.4			.9
University of Georgia.....	261	17.1		13.9	1.4			11.4	5.6	8.9			1.1
University of Illinois.....	1,422	31.6	17.3	28.3	1.7	1.4	1.8	2.5	33.3	40.4			1.4
University of Louisville.....	1,204	16.5	3.4	10.8	.8		.5	42.8	15.9	19.9			.9
University of Mississippi.....	94	24.3	4.2	19.2	1.3		2	3.9	22.2	2.9			2
University of Tennessee.....	442	12.6	3.7	10.0	1.0	1.3	1.1	22.2	15.9	35.2		1.8	1.1
University of Toledo.....	458	7	.6	.7	.7		.4	38.8	30.1				
University of Wyoming.....	245	2.1		1.2									
Total.....	5,872	22.2	10.4	18.9	1.0	.7	.9	11.2	9.6	10.8	.7	.4	.6
PRIVATELY CONTROLLED													
Boston University.....	246	17.1	6.9	15.9				21.2	20.7	21.1			1.2
Howard University (Negro).....	155	27.2	16.3	21.9				16.1	4.1	10.4			
Rensselaer Polytechnic Institute.....	217	15.2		15.2	3.2	6.7	3.3	17.4	17.4	17.4			
Rutgers University.....	363	26.1	1.3	23.2	3.2	4.0	2.3	26.7	29.4	27.5			.5
Syracuse University.....	528	27.2	26.9	27.1	4.6	1.9	3.4	17.5	18.5	17.8			1.1
Tulane University of Louisiana.....	535	35.2	16.2	29.6	4.0	1.9	2	38.3	3.8	31.2			.6
University of Chicago.....	458	1.6	1.9	1.8		.6		10.8	22.7	16.3			.7
University of Denver.....	287	13.8		13.4	1.0		1.0	4.7	71.4	6.4			1.1
University of Detroit.....	283	17.5	14.2	16.3				9.4	9.4	9.4			
Washington University.....	361							16.4	17.4	16.3			.6
Total.....	3,433	19.2	12.3	17.4	1.3	1.6	1.4	12.4	12.6	12.4	.8	.3	.6
Grand total.....	9,305	21.1	11.6	18.4	1.1	1.1	1.1	12.4	12.6	12.4	.7	.3	.6

Percentage of students leaving university because of—

Institution	Number of students	Sickness						Needed at home			Lack of interest			Miscellaneous causes			Unknown causes		
		Men		Women		Total		Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
		15	16	16	17	17	18												
1	2							18	19	20	21	22	23	24	25	26	27	28	29
PUBLICLY CONTROLLED																			
Iowa State College	457	5.5	9.2	7.3	6.6	6.6	0.9	5.4	2.2	3.9	4.4	3.2	3.9	22.0	35.3	25.8	3.0	3.8	3.3
Massachusetts State College	126	6.0	2.4	6.8	4.8	4.8		2.4	3.6	3.6	3.6		2.4	20.2	21.4	20.4	10.8	26.2	15.9
New Mexico College of Agriculture and and Mechanic Arts	97	2.9	3.7		3.2						48.5	14.8	39.2	14.3	48.2	23.6	4.3		3.1
Oklahoma Agricultural and Mechanical College	608										8.2	3.9	6.7						
Pennsylvania State College	489	4.8	7.3	5.1	5.1	5.1	1.4	.5	1.2	1.2				2.3	.5	2	78.9	92.7	83.5
University of Colorado	455	1.4	6.8	3.6	3.6	3.6	2.5	1.1	1.4	1.4	1.7	3.4	1.4	7.0	14.8	2.1	62.0	87.3	64.8
University of Florida	514	5.6	4.0	3.3	2.3	2.3	2.5		2.5	2.5	1.7	10.0	6.1	41.8	50.0	5.9	64.5	40.4	54.9
University of Georgia	261	1.9	4.0	1.9	1.9	1.9	.6	.3	.4	.4	5.2	2.1	2.9	4.3	12.3	7.9	8.1		6.5
University of Illinois	1,422	2.4	2.2	2.2	2.2	2.2	1.4		1.0	1.0	2.6	3.4	2.9	4.3	12.3	7.9	36.1	58.1	41.5
University of Louisiana	94	2.9	8.3	4.3	4.3	4.3	1.4		.8	.8	5.7	4.2	5.3	14.3	4.7	21.3	62.7	73.1	67.2
University of Mississippi	442	1.9	6.5	3.2	3.2	3.2	3.6	1.9	2.8	2.8	1.6	2.4	1.9	6.4	6.1	6.3	79.1	85.5	81.0
University of Tennessee	458	4.1	6.1	4.9	4.9	4.9	3.6	1.9	2.8	2.8	8.6	5.7	7.4	6.6	15.1	10.2	62.9	65.2	63.7
University of Toledo	245	4.3	5.7	4.9	4.9	4.9											35.3	41.5	37.9
University of Wyoming																			
Total	5,872	3.1	3.9	3.3	3.3	3.3	.8	1.0	.9	.9	8.8	7.8	8.0	6.7	10.8	7.8	48.6	56.5	48.2
PRIVATELY CONTROLLED																			
Boston University	246	3.7			3.2	3.2	1.8	3.5	2.0	2.0	5.5		4.9	16.1	20.7	16.7	33.2	48.2	35.0
Howard University (Negro)	155	1.3	9.5	3.7	3.7	3.7								6.1	1.3	3.8	49.3	62.1	55.4
Rensselaer Polytechnic Institute	217	3.7			3.7	3.7	1.7	.7	1.4	1.4	7.6	2.4	5.6	10.9	23.8	6.8	62.2	62.2	62.2
Rutgers University	363	4.6	8.7	6.1	6.1	6.1	3.3				2.2	1.5	1.9	32.9	20.8	15.4	19.4	13.5	17.4
Syracuse University	528	3.2	7.1	4.7	4.7	4.7	1.7	.6	1.3	1.3	2.2	2.9	2.2	31.7	9.4	25.0	15.5	23.6	18.8
Tulane University of Louisiana	535	8.8	7.5	2.8	2.8	2.8	1.6	1.0	1.3	1.3	1.6	2.9	2.2	13.9	11.1	12.6	27.7	60.0	37.4
University of Chicago	458	4.4	6.2	5.2	5.2	5.2	1.2		.7	.7	1.2	.8	1.0	27.9	33.7	30.4	37.4	53.6	44.8
University of Denver	287	1.2	6.8	1.0	1.0	1.0	1.2		.3	.3	2.7		2.8	38.8	28.6	38.5	57.7	40.3	50.6
University of Detroit	283	1.4			1.0	1.0	1.4	1.6	.6	.6	2.7		.6	5.1	5.5	5.4	62.8	66.9	37.2
Washington University	361	2.7	2.4	2.5	2.5	2.5		1.6	.6	.6	2.8								64.3
Total	3,433	2.6	5.9	3.6	3.6	3.6	.7	.7	.7	.7	2.2	1.2	1.0	21.3	13.8	10.6	37.5	44.0	39.5
Grand total	9,305	2.9	4.7	3.4	3.4	3.4	.8	.9	.8	.8	6.6	5.2	6.1	11.9	12.9	12.2	42.7	50.9	45.0

Dismissal for disciplinary causes was a relatively minor cause for students leaving the universities, according to column 8 of table 16. In six universities no students left due to this cause and in eight universities less than 1 percent. The highest percentages of students leaving as a result of dismissal for disciplinary causes varied from 3.4 to 3.2 in three universities. A slightly lower percentage of women than men students were dismissed on this account in the publicly controlled universities, as revealed in columns 6 and 7 of table 16. On the other hand, a higher percentage of women than men students is found in the case of the privately controlled universities.

Financial difficulties.—Financial difficulties constituted another of the principal known causes of students leaving the universities. There were 10 universities in which a larger percentage of students left because of financial difficulties than for any other single cause, as is evidenced by comparing the percentages in column 11 with those in columns, 5, 8, 14, 17, 20, and 23 of table 16.

Among the individual institutions the percentages were generally high. In 1 university approximately 40 out of every 100 students left because of financial difficulties, in another approximately 35 out of every 100, and in 5 others from 26 to 31 out of every 100. The publicly controlled universities had about 11 out of every 100 students and the privately controlled about 15 out of every 100 leaving for this cause.

A matter of special interest is the probability of a correlation existing between students leaving as a result of financial difficulties and students returning at a later date to continue work in some of the individual universities. Such correlation is indicated where both a high percentage of students leaving for this cause and of students returning at a later date is discovered. Information on this question may be obtained by comparing the percentages in column 11 of table 16 and column 34 of table 1. For example, at the University of Chicago 31.2 percent of the students left because of financial difficulties while at the same time 17.8 percent returned at a later date to continue work. Similarly, at the New Mexico College of Agriculture and Mechanic Arts the percentage of students leaving for financial difficulties was 28.8 and the percentage returning at a later date was 19.3. Since both these percentages are high, it is obvious that, other things being equal, a considerable proportion of the students who left due to financial difficulties returned later to continue their work in these two institutions.

Death and sickness.—The percentages of students whose collegiate careers were terminated by death were lower than that of any other single cause. In seven universities no deaths occurred among the students while in the remaining universities from 1.1 to 0.2 percent of the students died, as

disclosed in column 14 of table 16. The percentages of deaths for both publicly and privately controlled universities were the same, being 0.6. This percentage is slightly below the average annual death rate amounting to approximately 0.8 for young men and women between the ages of 18 and 22 years in the United States, as recorded by the American Table of Mortality.²

Sickness represented a somewhat important cause of students leaving the individual universities, as disclosed by column 17 of table 16. Sixteen, or two-thirds, of the universities had from 6.6 and 3.2 percent of the students leaving because of sickness. Less than 3 percent of the students left on account of sickness in seven other universities. One was unable to furnish information as to the students leaving for this cause. About the same proportion of the students left the publicly controlled, as the privately controlled universities as a result of sickness.

Needed at home and lack of interest.—Comparatively few students left the universities because they were needed at home. The percentages of students leaving the individual universities due to this cause ranged from 3.6 to 0.2, as indicated by column 23 of table 16. It will be observed that the institutions with the larger percentages were in most cases land-grant colleges. Accordingly, the assumption may be made that many of the students who left because they were needed at home were generally sons or daughters of farmers. A slightly higher percentage of women than men students left the publicly controlled universities for this reason.³ No differences by sex are found in the privately controlled universities.

Lack of interest represents one of the causes based largely on subjective opinion. Students classified as leaving the universities for this cause consisted for the most part of those who in the opinion of administrative officers or faculty members showed little or no interest in their collegiate work and, therefore, left the universities. In some instances, however, the students themselves gave lack of interest as their reason for leaving the universities. As is readily observable in column 23 of table 16, large percentages of the students left two of the publicly controlled universities because of lack of interest.

In one of these universities lack of interest was responsible for a higher percentage of the students leaving than for any other single cause. About one out of every three students left this particular university on account of lack of interest. In another university about one out of every four students left due to this cause. Proportionately more men than women students left the universities under both public and private control because of lack of interest.

Miscellaneous causes.—Under the category of miscellaneous causes have

² See American Table of Mortality with death rate per 1,000 and expectation of life.

been grouped a variety of causes responsible for students leaving the universities. This was done principally to avoid the tabulation of each separately. Among them were marriage, family moved from community in which university is located, student obtained job, too many extra-curricular activities, inadequate high-school foundation, and the like. Some of the other causes included were those of an intangible or indefinite character. In addition, students who left the universities because they transferred to some other institution were classified under miscellaneous causes.

In certain of the individual universities the percentages of students leaving as a result of miscellaneous causes were somewhat large. Nine of the universities had from 43.3 to 20.4 percent of their students leaving for the various causes included in this category, as disclosed by column 26 of table 16. In the remaining universities the percentages were generally smaller. As between the publicly and privately controlled universities, it is found that the percentage of students leaving the latter institutions for miscellaneous causes exceeded that for the former by 11.8.

Unknown causes.—One of the unexpected outcomes of the present study was the large number of students for whom the individual universities possessed no knowledge as to why they left the institution. As already pointed out, this was due in part to the inadequacy of the student records in not making provision for recording the causes prompting students to leave college and also in part to the failure of students after leaving the universities at the end of the several years in informing the institutions of the reasons for not returning at the opening of the following fall session.

In one university the percentage of students leaving for unknown causes was 83.5 and in another 81, as shown by column 29 of table 16. In other words, more than four-fifths of the students who left these two universities did so without the institutions having any information as to the causes for their withdrawal. There were 15 universities in which from 63.7 to 35 percent left under the same condition. Two universities were able to furnish the causes of why all the students left except approximately 3 percent. The percentages of students leaving for unknown causes in the five remaining universities were moderately small varying from 6.6 to 18.8.

The privately controlled universities had a smaller percentage of the students who left for unknown causes than the publicly controlled universities. About every other student left the universities under public control without any knowledge being available as to the cause as compared with about one out of every three in the case of the universities under private control. Of particular significance is the disclosure in columns 37 and 38 of table 16 that the causes of greater percentages of women than of men

students leaving the institutions were unknown in most of the individual universities.

The causes of student mortality for the universities as a whole are presented graphically in the following figure. Percentages of students leaving for each of the several causes as given in the figure consist of those at the bottom of columns 5, 8, 11, 14, 17, 20, 23, 26, and 29 of table 16.

For the universities as a whole, the causes for 45 out of every 100 students leaving the institutions were unknown, according to the percentages in figure 7. Of the remaining 55 of each 100 students, approximately 18 left because of

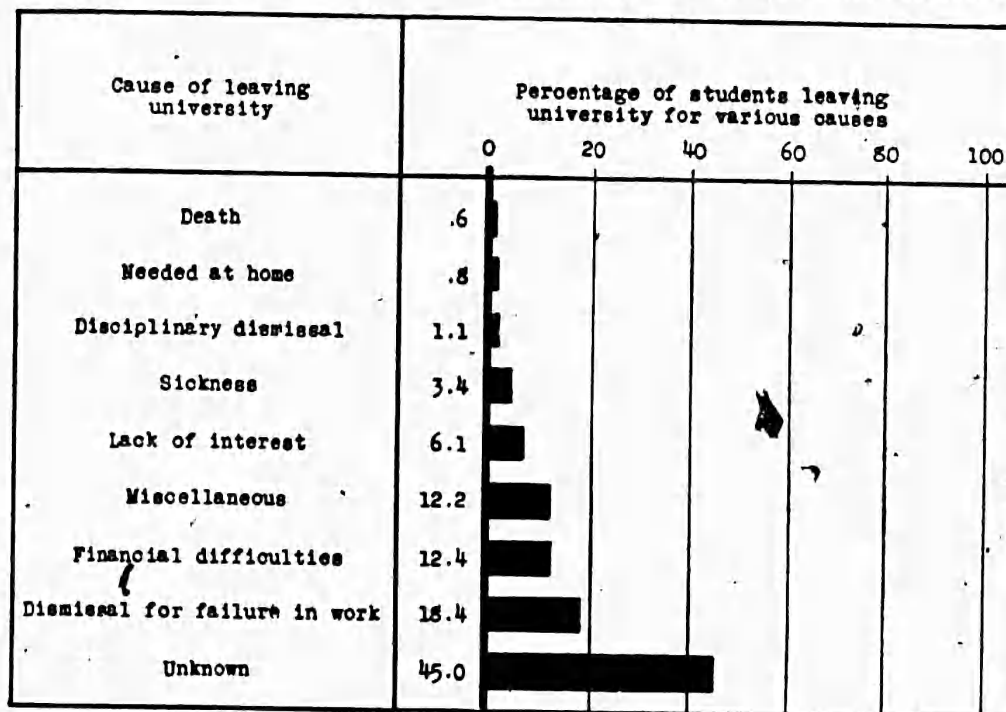


FIGURE 7.—Causes of student mortality.

dismissal for failure in work, 12 because of financial difficulties, 12 because of miscellaneous causes, 6 because of lack of interest, 3 because of sickness, 1 because of dismissal for disciplinary causes, and less than 1 each because of being needed at home and because of death.

CAUSES OF STUDENT MORTALITY BY COLLEGE OR SCHOOL

A comparison of the causes of student mortality in the seven types of colleges or schools is presented in table 17. The type of college or school is first given together with the number of such colleges or schools and the number of students represented. Percentages of students leaving for the various causes are then shown for each college or school, as in the preceding table.

The colleges or schools are arranged in the table in order of rank according to the percentages of students leaving because of dismissal for failure in work, since this was one of the principal causes of student mortality. The college or school with the highest percentage of students dismissed for failure in work is shown first with the others following in successive order.

TABLE 17.—Causes of student mortality by college or school

College or school	Number of colleges or schools	Number of students	Percentage of students leaving university because of—								
			Dismissal for failure in work	Dismissal for disciplinary causes	Financial difficulties	Death	Sickness	Needed at home	Lack of interest	Miscellaneous causes	Unknown causes
1	2	3	4	5	6	7	8	9	10	11	12
Law.....	3	62	37.1	1.6	6.5	—	4.8	—	—	12.9	37.1
Agriculture.....	12	565	23.7	1.0	15.8	1.0	3.9	2.0	3.0	11.3	38.3
Commerce and business.....	13	1,355	22.5	1.0	11.8	.5	2.8	1.0	9.4	12.7	38.3
Education.....	11	439	22.3	.7	11.4	.2	3.4	.9	2.0	8.8	50.3
Engineering.....	16	1,544	19.9	1.1	10.7	.6	3.5	.3	3.2	12.7	48.0
Home economics.....	6	271	15.5	.7	14.4	.7	6.4	2.9	4.1	19.5	35.8
Arts and sciences.....	20	3,921	15.3	1.1	11.8	.5	3.4	.6	5.9	12.5	48.9

The several colleges or schools differed considerably as to the causes responsible for students leaving them. Law with the highest percentage of students who left because of dismissal for failure in work had slightly more than one out of every three students leaving on this account, as revealed by column 4 of table 17. In arts and sciences with the lowest percentage, there were about one out of every six students leaving for the same cause. Accordingly, more than twice as many students were dismissed for failure in work in law as in arts and sciences.

In this connection, it will be recalled that in table 7 presented in chapter II the lowest gross mortality was found in law and the highest in arts and sciences. The fact that the college or school with the highest percentage of students dismissed for failure in work also had the lowest gross mortality, while the college or school with the lowest percentage of students dismissed for failure in work had the highest gross mortality may be more than coincidental.

A larger percentage of students left because of financial difficulties in agriculture than in any other college or school with home economics having the second largest percentage, as shown by column 6 of table 17. Since most of the students in agriculture are sons of farmers, it might be concluded that farmers encountered greater financial obstacles in sending their sons through college than parents engaged in other vocations. The percentage of students leaving on account of financial difficulties was

lowest in the case of law. From 9.3 to 7.9 percent less students left the colleges or schools of law for this cause than those of agriculture and home economics, respectively.

Some rather singular differences are found in the other known causes of students leaving the colleges or schools. For instance, sickness was responsible for a larger percentage of students leaving in home economics than in any other college or school. The registration in home economics was composed entirely of women students. In agriculture and home economics higher proportionate numbers of students left because they were needed at home. Commerce and business, in which the second highest rate of both gross and net mortality existed, had the largest percentage of students leaving as a result of lack of interest.

Separate tables have been compiled to show the causes of student mortality in the individual colleges or schools of the several types conducted by the universities. These tables follow the same general plan of the two preceding tables giving the number of students involved and the percentages of students leaving for each cause. It must be cautioned that the percentages should be regarded as lacking in validity when based on a very small number of students. Publicly and privately controlled universities are segregated.

Arts and sciences.—In table 18 are presented the data on causes of student mortality in 19 colleges of arts and sciences.

Wide variations are found among the individual colleges of arts and sciences in the percentages of students leaving for different known causes. In some of the colleges the principal known cause was dismissal for failure in work while in others financial difficulties or lack of interest comprised the main known reason for the withdrawal of students.

As an illustration, the college of arts and sciences, University of Colorado, had 31.9 percent of its students leaving because of dismissal for failure in work as compared with 9.4 percent for the college of arts and sciences, University of Mississippi, according to column 3 of table 18. Correspondingly, in the college of arts and sciences, University of Mississippi, the percentage of students leaving on account of financial difficulties amounted to 34.9 whereas in the college of arts and sciences, University of Colorado, the percentage was 5.5, as shown in column 5 of table 18. Thus, the principal known cause of students leaving the college of arts and sciences, University of Colorado, was dismissal for failure in work. In the college of arts and sciences, University of Mississippi, it was financial difficulties. The highest percentage of students left for lack of interest in the college of arts and sciences, University of Illinois. Comparisons of other individual arts and sciences colleges yield similar results.

TABLE 18.—Causes of student mortality in 19 colleges of arts and sciences

Institution	Number of students	Percentage of students leaving university because of—								
		Dismissal for failure in work	Dismissal for disciplinary causes	Financial difficulties	Death	Sickness	Needed at home	Lack of interest	Miscellaneous causes	Unknown causes
1	2	3	4	5	6	7	8	9	10	11
PUBLICLY CONTROLLED										
New Mexico College of Agriculture and Mechanic Arts.....	32	3.1		25.0		3.1		15.7	50.0	3.1
Oklahoma Agricultural and Mechanical College.....	112	8.9			1.8			5.4		83.9
Pennsylvania State College.....	85	11.8		5.9	1.2	4.7				76.4
University of Colorado.....	332	31.9	0.3	5.5	.6	4.8	0.6	1.5	7.5	47.3
University of Florida.....	160	24.4	.6	8.7	.6	5.6	1.9	2.5	11.9	43.8
University of Illinois.....	649	19.9	1.8	.7	.2	1.4	.3	24.9	.8	50.0
University of Louisville.....	204	10.8	.5	8.9	.9	.9		2.9	7.9	67.2
University of Mississippi.....	43	9.4		34.9		4.6		4.6	34.9	11.6
University of Tennessee.....	248	12.1	.4	2.8		3.6		.4	1.6	79.1
University of Toledo.....	166	1.2	1.8	18.7	.6	3.0	.6	3.0	4.2	66.9
University of Wyoming.....	76	1.3	1.3	32.9		6.6	3.9	6.6	7.9	39.5
Total.....	2,107	10.8	1.0	8.8	.5	3.0	.5	9.5	5.4	58.5
PRIVATELY CONTROLLED										
Howard University (Negro).....	107	19.6	2.8	10.3		3.7			5.6	58.0
Rutgers University.....	239	25.5	2.1	24.7	1.7	6.3	1.2	3.8	16.3	18.4
Syracuse University.....	192	30.2	.5	18.8		3.6		2.6	37.0	7.3
Tulane University of Louisiana.....	311	16.8	3.9	1.9	.6	4.1	.3		25.4	47.0
University of Chicago.....	458	1.8	.2	31.2	.7	5.2	1.3	2.2	12.6	44.8
University of Denver.....	189			16.4		1.6	1.1	1.1	36.0	44.0
University of Detroit.....	104	13.5	1.0	5.7		1.0		2.0	46.1	30.7
Washington University.....	214	16.3		10.7	.5	1.9	.5	.5	4.2	65.4
Total.....	1,814	13.7	1.3	17.4	.6	3.9	.7	1.6	20.8	49.0

It will be observed that the colleges of arts and sciences in publicly controlled universities had a higher percentage of students leaving for dismissal for failure in work than for any other single known cause, as revealed by comparing the percentages in columns 3, 4, 5, 6, 7, 8 and 9 of table 18. In the case of arts and sciences colleges in privately controlled universities, the highest percentage of students left because of financial difficulties.³ A probable explanation of this difference is the greater costs of attending privately controlled arts and sciences colleges because of higher charges for tuition.

Commerce and business.—Table 19 shows the causes of student mortality in 13 colleges or schools of commerce and business operated by the different universities.

³ The percentage of students leaving for miscellaneous causes in the case of arts and sciences colleges in privately controlled universities, as shown by column 10 of table 18, exceeds that of students leaving because of financial difficulties. Since the latter category comprises a number of different single causes, it was omitted in making this comparison.

TABLE 19.—Causes of student mortality in 13 colleges or schools of commerce and business

Institution	Number of students	Percentage of students leaving university because of—								
		Dismissal for failure in work	Dismissal for disciplinary causes	Financial difficulties	Death	Sickness	Needed at home	Lack of interest	Miscellaneous causes	Unknown causes
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
PUBLICLY CONTROLLED										
Oklahoma Agricultural and Mechanical College.....	147	10.2	0.7	—	—	—	0.7	9.5	—	78.9
University of Florida.....	134	30.6	1.5	10.5	0.7	4.5	3.0	2.2	3.0	44.0
University of Georgia.....	55	18.2	—	20.0	1.8	1.8	—	12.7	32.8	12.7
University of Illinois.....	305	36.1	1.3	3.3	3	3.6	7	26.6	9	27.2
University of Mississippi.....	38	26.3	—	47.4	—	2.7	2.5	7.9	7.9	5.3
University of Toledo.....	79	—	—	13.9	1.3	3.8	1.3	1.3	7.6	70.8
University of Wyoming.....	45	2.2	—	28.9	—	4.4	—	6.7	6.7	51.1
Total.....	803	23.4	.9	9.5	.5	3.0	1.1	13.9	4.6	43.1
PRIVATELY CONTROLLED										
Boston University.....	193	13.0	—	21.8	1.0	3.1	2.1	5.7	35.2	18.1
Syracuse University.....	116	23.2	—	13.8	1.0	6.9	—	1.7	23.3	30.1
Tulane University of Louisiana.....	75	64.0	6.7	1.3	—	—	—	—	10.7	17.3
University of Denver.....	69	—	—	17.4	—	—	—	1.5	15.9	65.2
University of Detroit.....	65	15.5	3.0	15.5	—	—	1.5	1.5	27.7	35.3
Washington University.....	34	23.5	—	5.9	—	—	—	—	8.8	61.8
Total.....	552	21.4	1.3	15.0	.5	2.5	.9	2.7	24.5	31.2

An examination of the percentages in columns 3 and 5 of table 19 shows that dismissal for failure in work and financial difficulties constitute the main causes of students leaving the individual commerce and business colleges or schools. Although two universities reported no students leaving their colleges of commerce and business because of dismissal for failure in work and one reported no students leaving because of financial difficulties, such colleges or schools in the remaining universities had from 73.7 to 29.4 percent of the students leaving for these two causes alone.⁴

Differences in the percentages of students leaving the commerce and business college and the arts and sciences college within the same university for the various causes are of importance. This information is obtained by comparing the figures in tables 18 and 19. Using Tulane University of Louisiana as an example, the percentage of students leaving its commerce and business administration college because of dismissal for failure in work was 64 in contrast with 16.8 percent for its college of arts and sciences. Thus, the percentage of students dismissed for failure in work in this university's commerce and business administration college was 47.2 greater than that of students in its arts and sciences college. Similarly, the percentage of stu-

⁴ These figures were obtained by adding the percentages of students leaving because of dismissal for failure in work and for financial difficulties for each college or school in columns 3 and 5 of table 19.

dents in the commerce and business administration college of the university leaving because of dismissal for disciplinary causes exceeded that of students in the arts and sciences college by 2.8. Approximately the same percentage of students left both the colleges because of financial difficulties.

Education.—In table 20 are presented the causes of student mortality in 11 colleges or schools of education.

TABLE 20.—*Causes of student mortality in 11 colleges or schools of education*

Institution	Number of students	Percentage of students leaving university because of—								
		Dismissal for failure in work	Dismissal for disciplinary causes	Financial difficulties	Death	Sickness	Needed at home	Lack of interest	Miscellaneous causes	Unknown causes
1	2	3	4	5	6	7	8	9	10	11
PUBLICLY CONTROLLED										
Oklahoma Agricultural and Mechanical College	70	1.4						2.9		95.7
Pennsylvania State College	54	16.7		9.3		5.5				68.5
University of Florida	50	18.0		16.0	2.0	6.0	4.0	2.0	10.0	42.0
University of Georgia	8	37.5		12.5					50.0	
University of Illinois	65	49.2		4.6			1.5	6.2		38.5
University of Tennessee	17					6.0		5.8		88.2
University of Wyoming	55			30.9		3.6		1.8	16.4	47.3
Total	319	16.9		10.6	.3	2.8	1.0	2.8	5.6	59.9
PRIVATELY CONTROLLED										
Boston University	14	42.8		14.3			7.2		35.7	
Howard University (Negro)	48	27.1	4.2	10.4		5.3				50.0
Rutgers University	16	43.7		31.2		6.3			12.5	6.3
Syracuse University	42	42.9	2.4	9.5		2.4			33.3	9.5
Total	120	34.7	2.5	13.3		5.0	.8		17.5	24.2

Of paramount interest are the four individual colleges or schools of education, shown in column 3 of table 20, with unusually high percentages of their students leaving because of dismissal for failure in work. In these colleges or schools from 49.2 to 42.8 percent of the students left for this cause.⁵ This means that almost every other student leaving them was dismissed for failure in work. These percentages are higher than are found not only in any other individual college or school of education but also in any individual college of arts and sciences or of commerce and business with one exception.

Likewise, there was a larger percentage of students leaving privately controlled than publicly controlled colleges or schools of education as a result of dismissal for failure in work. The percentage of students who left the former due to such cause exceeded that of the latter by 19.9. An opposite

⁵ The small number of students in the case of two of the colleges or schools tends to raise the question of the reliability of the high percentages.

situation existed in both colleges of arts and sciences and of commerce and business where larger proportions of students were dismissed in those under public control.

It will be noted that proportionately few students left the colleges or schools of education for minor causes. In 9 out of the 11 colleges or schools, no students were shown as leaving because of dismissal for disciplinary causes, in 10 none because of death, in 8 none because of being needed at home, and in 6 none because of lack of interest.

Engineering.—The causes of student mortality in 16 schools of engineering are given in table 21.

TABLE 21.—*Causes of student mortality in 16 schools of engineering*

Institution	Number of students	Percentage of students leaving university because of—								
		Dismissal for failure in work	Dismissal for disciplinary causes	Financial difficulties	Death	Sickness	Needed at home	Lack of interest	Miscellaneous causes	Unknown causes
1	2	3	4	5	6	7	8	9	10	11
PUBLICLY CONTROLLED										
Iowa State College.....	182	30.8	1.6	33.5	-----	3.9	0.5	3.9	24.7	1.1
New Mexico College of Agriculture and Mechanic Arts.....	28	3.6	-----	32.1	-----	-----	-----	50.0	10.7	3.6
Oklahoma Agricultural and Mechanical College.....	134	13.4	-----	-----	-----	-----	-----	9.8	-----	76.8
Pennsylvania State College.....	108	26.0	1.8	9.3	-----	5.5	.9	-----	-----	56.5
University of Colorado.....	102	19.5	-----	1.0	2.0	-----	-----	-----	-----	77.5
University of Florida.....	81	30.8	2.5	6.2	2.5	7.4	2.5	-----	2.5	45.6
University of Illinois.....	148	31.1	.7	2.7	.7	4.7	-----	-----	24.3	35.8
University of Tennessee.....	85	10.6	-----	3.5	1.2	1.2	-----	1.2	-----	82.3
University of Toledo.....	85	-----	-----	27.1	1.2	5.8	-----	1.2	4.7	60.0
University of Wyoming.....	36	2.8	-----	50.0	-----	2.8	-----	13.9	13.9	16.6
Total.....	989	20.6	.8	12.6	.7	4.2	.4	4.2	9.6	46.9
PRIVATELY CONTROLLED										
Rensselaer Polytechnic Institute.....	217	15.2	3.2	17.4	.5	3.7	.5	.5	6.8	62.2
Rutgers University.....	25	8.0	4.0	44.0	-----	8.0	-----	4.0	20.0	12.0
Tulane University of Louisiana.....	97	43.3	1.0	-----	-----	-----	-----	-----	28.8	26.9
University of Denver.....	29	-----	-----	13.8	-----	-----	-----	-----	27.6	58.6
University of Detroit.....	114	12.3	-----	1.7	-----	-----	-----	4.4	37.7	43.9
Washington University.....	73	16.4	-----	9.7	2.7	2.7	-----	1.4	2.7	64.4
Total.....	555	18.5	1.6	7.2	.6	2.3	.2	1.4	18.2	50.1

Relatively small percentages of students left individual schools of engineering because of financial difficulties, according to column 5 of table 21. Of the 16 schools there were 2 in which no students were reported as leaving for this cause. In seven others less than 10 percent of the students left due to financial difficulties. The remaining schools had higher percentages varying from 50 to 13.8. That students in engineering possibly made preparations in advance to defray the cost of going through the 4-year college period may account for this situation.

In this connection, a smaller percentage of students left the publicly controlled engineering schools because of financial difficulties than the privately controlled. Attention has previously been called to the fact that financial difficulties were responsible for larger percentages of students leaving privately controlled than publicly controlled colleges or schools of other types. In the colleges of arts and sciences under private control the percentage of students leaving for this reason was greater by 10.6 than that for the colleges under public control. The excess in the case of commerce and business was 5.5 percent, and in education 2.7 percent. For engineering, this picture is reversed. The privately controlled schools had a percentage of the students leaving as a result of financial difficulties 5.4 less than that for the publicly controlled, as shown by column 5 of table 21.

Agriculture.—In table 22 are exhibited data on the causes of student mortality in 12 individual colleges of agriculture.

TABLE 22.—Causes of student mortality in 12 colleges of agriculture

Institution	Number of students	Percentage of students leaving university because of—								
		Dismissal for failure in work	Dismissal for disciplinary causes	Financial difficulties	Death	Sickness	Needed at home	Lack of interest	Miscellaneous causes	Unknown causes
1	2	3	4	5	6	7	8	9	10	11
PUBLICLY CONTROLLED										
Iowa State College.....	89	33.8	2.2	27.0	1.1	9.0	2.2	2.2	19.2	3.4
Massachusetts State College.....	26	46.1		3.9		11.5		3.9	19.2	15.4
New Mexico College of Agriculture and Mechanic Arts.....	15			26.7				53.3	13.3	6.7
Oklahoma Agricultural and Mechanical College.....	53	13.2			1.8					85.0
Pennsylvania State College.....	75	5.3		14.7		5.3			8.0	66.7
University of Florida.....	32	18.8		18.8	3.1	6.2	3.1		9.4	40.6
University of Georgia.....	25	4.0		44.0					52.0	
University of Illinois.....	128	42.1	1.6	3.9	1.6	.8	1.6		6.3	42.1
University of Tennessee.....	33	9.1		9.1				6.1		75.7
University of Wyoming.....	32			40.6	1.0	6.2	12.5	12.5	6.2	22.0
Total.....	508	23.0	.8	15.4	1.0	3.8	1.8	3.4	11.0	39.8
PRIVATELY CONTROLLED										
Rutgers University.....	34	26.5	2.9	29.4		2.9	5.9		5.9	26.5
Syracuse University.....	23	34.7		4.4		4.4			34.7	21.8
Total.....	57	29.8	1.8	10.3		3.5	3.5		17.6	24.5

It has already been pointed out that agriculture when the figures of all such colleges were combined had a higher percentage of students leaving because of financial difficulties than any other field or profession. Further corroboration is found in the case of individual colleges of agriculture, as revealed in column 5 of table 22.

In 2 of the 12 colleges, about 44 to 41 out of every 100 students left as a consequence of financial difficulties, in 3 about 29 to 27, and in 2 about 19 to 15. The other colleges had fewer than 10 out of every 100 students leaving for this cause. It will be observed that this is contrary to the situation among the individual schools of engineering in which comparatively small percentages of students left because of financial difficulties.

Agricultural colleges possessed information as to the causes of the withdrawal of their students to a greater extent than most colleges or schools of other types. In the case of those under public control the causes why 60.2 percent of the students left the colleges were known and of those under private control approximately 75.5 percent, as disclosed by the percentages in column 11 of table 22.

Home economics.—Figures regarding the causes of student mortality in six colleges or schools of home economics are given in table 23.

TABLE 23.—Causes of student mortality in 6 colleges or schools of home economics

Institution	Number of students	Percentage of students leaving university because of—								
		Dismissal for failure in work	Dismissal for disciplinary causes	Financial difficulties	Death	Sickness	Needed at home	Lack of interest	Miscellaneous causes	Unknown causes
1	2	3	4	5	6	7	8	9	10	11
PUBLICLY CONTROLLED										
Iowa State College.....	117	17.1	0.9	21.4	1.7	10.3	5.9	3.4	35.0	4.3
Massachusetts State College.....	19	31.6	5.3	5.3	-----	-----	-----	-----	26.2	31.6
Oklahoma Agricultural and Mechanical College.....	47	-----	-----	-----	-----	-----	-----	10.7	2.1	87.2
University of Georgia.....	10	-----	-----	60.0	-----	-----	-----	10.0	30.0	-----
University of Tennessee.....	49	4.1	-----	-----	-----	6.2	2.0	2.0	-----	85.7
Total.....	242	11.6	.8	13.2	.8	6.2	3.3	4.6	20.7	38.8
PRIVATELY CONTROLLED										
Syracuse University.....	29	48.2	-----	24.1	-----	6.9	-----	-----	10.4	10.4

Students in home economics consisted entirely of women. For this reason it should prove enlightening to compare the percentages of home economics students leaving for different causes with those of a college or school composed of men students. Such was approximately the case with engineering. Since the single privately controlled college of home economics may not be representative, the comparison will be made only between publicly controlled colleges or schools of the two types. The percentages compared are contained in the various columns of tables 21 and 23.

The fact that proportionately less women than men students in general left the universities for dismissal for failure in work has been previously indicated. The percentage of students leaving home economics colleges or schools for this cause was 9.0 less than that of students leaving engineering schools. On the other hand, the percentages of students leaving for the several other causes with one exception were greater for home economics than for engineering. The percentage of home economics students who left because of financial difficulties exceeded that of engineering students by 0.6, because of death by 0.1, because of sickness by 2.0, because of being needed at home by 2.9, because of lack of interest by 0.4, for miscellaneous causes by 11.1. While these differences are not pronounced in some instances, the results of the comparison appear to indicate that more women students in home economics left for a variety of causes than men students in engineering.

Law.—Data on the causes of student mortality in three individual schools of law are presented in table 24.

TABLE 24.—*Causes of student mortality in 3 colleges of law*

Institution	Number of students	Percentage of students leaving university because of—					
		Dismissal for failure in work	Dismissal for disciplinary causes	Financial difficulties	Sickness	Miscellaneous causes	Unknown causes
1	2	3	4	5	6	7	8
PUBLICLY CONTROLLED							
University of Florida.....	26	23.1	3.8	15.4	3.8	11.5	42.4
University of Illinois.....	9	55.6				22.2	22.2
Total.....	35	31.4	2.9	11.4	2.9	14.3	37.1
PRIVATELY CONTROLLED							
Tulane University of Louisiana.....	27	44.4			7.4	11.1	37.1

Dismissal for failure in work represented the predominant cause of students leaving each of the individual colleges of law, according to the figures in the different columns of table 24. For example, in one college of law approximately 56 out of every 100 students left because of dismissal for failure in work and 22 out of every 100 for miscellaneous causes. No students left this college for any of the other known causes, such as dismissal for disciplinary causes, financial difficulties, death, sickness, needed at home, or lack of interest. A somewhat similar distribution of the causes of the withdrawal of students is found in the other two colleges.

[CHAPTER IV]

Factors Involved in Student Mortality

MANY FACTORS of a sociological character obviously are involved in student mortality. Such factors operating on the students frequently exercise either a direct or indirect influence in causing them to leave college.

Due to the limitations placed on the present study, it was possible to collect data on only a few of these factors. The particular ones selected related chiefly to certain phases of collegiate environment. Among them were: (1) age at entrance of student, (2) location of home of student, (3) place of lodging of student, (4) participation of student in extracurricular activities, and (5) engagement by student in part-time work. The relationship existing between each of these factors and student mortality on a basis of the data assembled in this study are presented separately.

AGE AT ENTRANCE

Several important questions are involved in an analysis of age at entrance. Foremost among them is whether immaturity or maturity of the students was related to their withdrawal from the universities. In shedding light on this question, it was necessary to ascertain whether more of the students entering at an early age left the institutions than those entering at a later age. Another question of significance is the particular entrance age at which a greater proportion of the students left the universities.

To obtain this information, a compilation of the total number of students segregated by sex who entered at each of the different ages was made. The number of students who left the universities for each of the ages was then compiled and the percentages of such students calculated. In table 25 are shown the results for the individual universities, for those under public and private control, and for the group as a whole.

TABLE 25.—Student mortality according to various ages at entrance of students segregated as to sex in 25 universities classified by type of control

Percentage of students leaving university whose age at entrance was—													
Institution	Num-ber of stu-dents	Less than 17 years			17 years to 17 years 5 months			17 years 6 months to 17 years 11 months			18 years to 18 years 5 months		
		Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
I	2	3	4	5	6	7	8	9	10	11	12	13	14
PUBLICLY CONTROLLED													
Iowa State College.....	806	25.0	14.3	20.0	46.8	71.4	54.4	41.0	50.0	44.2	49.6	57.1	51.7
Massachusetts State College.....	282	27.3	33.3	28.6	29.4	30.8	30.0	35.3	52.7	41.5	34.9	66.7	44.3
New Mexico College of Agriculture and Mechanic Arts.....	145	50.0	60.0	53.9	62.5	66.7	63.6	62.5	70.0	66.7	61.5	33.3	50.0
Oklahoma Agricultural and Mechanical College.....	795	66.7	64.7	65.4	60.0	64.3	62.1	71.1	85.4	77.9	67.4	82.9	72.3
Pennsylvania State College.....	1,111	8.3	25.0	12.5	36.9	23.1	32.2	42.9	32.1	40.7	43.5	21.3	39.6
University of Colorado.....	641	41.6	53.3	48.1	44.0	62.2	54.8	70.9	58.8	65.1	70.9	72.1	71.5
University of Florida.....	788	65.8	65.3	65.8	53.5	53.5	53.5	60.5	26.9	60.5	57.4	52.9	56.2
University of Georgia.....	1,488	40.0	39.4	47.8	41.0	33.3	38.2	55.8	60.0	44.9	57.4	52.5	62.6
University of Illinois.....	2,236	50.8	71.4	46.6	52.2	58.8	45.2	61.1	81.2	70.1	82.7	78.1	80.3
University of Louisville.....	258	72.7	71.4	72.0	50.0	42.9	45.2	61.1	81.2	70.1	82.7	78.1	80.3
University of Mississippi.....	160	92.3	63.1	78.1	67.6	70.8	69.0	70.3	23.5	75.3	79.2	68.4	74.4
University of Tennessee.....	556	83.3	60.0	72.7	86.3	71.4	79.1	60.8	58.2	59.4	91.2	76.3	84.4
University of Toledo.....	595	33.3	30.0	32.0	62.5	81.8	76.7	72.2	86.9	80.5	66.7	73.1	70.0
University of Wyoming.....	328	33.3	30.0	32.0	62.5	81.8	76.7	72.2	86.9	80.5	66.7	73.1	70.0
Total.....	9,189	48.1	50.0	48.8	42.6	55.4	52.2	55.9	59.9	57.5	62.1	63.3	62.5
PRIVATELY CONTROLLED													
Boston University.....	1,450	71.4	100.0	62.5	42.9	40.0	42.3	34.6	57.1	39.4	52.9	85.7	55.8
Brigham Young University.....	4,373	80.0	36.4	88.9	72.7	100.0	88.4	66.7	86.9	81.3	61.9	76.4	68.4
Howard University (Negro).....	217	25.0	36.4	33.3	69.2	63.6	66.7	27.2	57.1	44.0	72.7	50.0	60.8
Rensselaer Polytechnic Institute.....	430	37.9	37.9	37.9	36.1	36.1	36.1	54.4	40.8	33.8	38.6	39.7	38.6
Rutgers University.....	864	34.4	38.9	37.2	40.0	38.3	39.4	27.5	40.8	33.8	45.7	43.4	43.4
Syracuse University.....	1,115	50.0	36.6	42.5	45.1	38.9	41.4	49.2	36.6	42.1	41.0	45.9	43.6
Tulane University of Louisiana.....	750	65.5	47.3	56.4	50.6	61.6	59.1	74.3	48.9	63.4	80.0	64.2	72.8
University of Chicago.....	723	34.2	50.0	42.1	58.5	57.1	57.9	53.4	64.2	59.1	58.6	73.4	64.9
University of Denver.....	411	71.4	50.0	58.8	73.6	82.1	78.3	65.5	69.5	67.7	68.7	53.8	61.0
University of Detroit.....	390	33.3	33.3	33.3	80.6	100.0	81.2	60.9	54.4	60.9	69.5	100.0	70.2
Washington University.....	1,614	51.1	48.1	43.9	44.7	36.7	41.2	52.5	54.4	53.4	58.8	61.7	59.8
Total.....	6,337	48.1	42.6	45.7	52.9	52.7	52.8	50.8	53.1	51.8	55.2	56.8	55.8
Grand total.....	15,526	48.3	45.4	47.0	51.4	54.0	52.5	53.9	56.1	55.1	59.2	60.5	58.8

Percentage of students leaving university whose age at entrance was—

Institution	Number of students	18 years 6 months to 18 years 11 months			19 years to 19 years 5 months			19 years 6 months to 19 years 11 months			20 years or over			
		Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	
PUBLICLY CONTROLLED														
Iowa State College.....	806	55.7	60.0	56.8	61.2	66.7	62.6	59.2	60.0	59.3	72.6	78.6	73.7	
Massachusetts State College.....	282	30.8	38.8	33.2	38.8	75.0	61.9	72.7	50.0	66.7	62.9	75.0	64.5	
New Mexico College of Agriculture and Mechanic Arts.....	145	64.3	87.5	72.8	66.7	75.0	60.0	80.0	50.0	71.4	80.6	75.0	80.0	
Oklahoma Agricultural and Mechanical College.....	795	73.8	81.8	75.4	83.1	85.1	83.8	69.6	100.0	48.3	80.9	82.5	81.3	
Pennsylvania State College.....	1,111	48.7	41.4	47.5	50.9	50.0	50.9	49.5	33.3	48.3	59.4	66.7	59.6	
University of Colorado.....	641	75.8	63.6	71.6	77.9	93.3	81.1	82.8	100.0	85.3	79.7	92.9	82.1	
University of Florida.....	788	72.2	72.2	72.2	66.7	66.7	66.7	71.6	71.6	71.6	61.3	61.3	61.3	
University of Georgia.....	1,488	54.5	33.3	49.2	76.7	75.0	76.3	65.9	50.0	63.5	40.9	81.8	61.6	
University of Illinois.....	2,256	61.0	70.5	63.3	65.7	74.4	67.5	71.3	82.6	73.2	76.6	94.3	78.9	
University of Louisville.....	258	100.0	83.3	94.3	88.8	91.6	90.0	100.0	100.0	100.0	79.2	100.0	80.0	
University of Mississippi.....	160	86.7	70.0	81.5	83.6	69.2	81.4	88.9	77.8	87.0	88.9	84.6	88.3	
University of Tennessee.....	556	81.9	73.8	78.9	84.9	93.3	86.2	85.7	75.0	82.8	72.5	100.0	77.6	
University of Toledo.....	395	55.2	92.8	67.4	84.4	85.7	84.8	66.7	85.7	72.0	85.7	100.0	88.0	
University of Wyoming.....	328													
Total.....	9,199	63.6	67.1	64.5	71.0	77.9	72.3	69.4	73.5	70.0	72.2	86.9	74.1	
PRIVATELY CONTROLLED														
Boston University.....	1,450	61.0	33.3	58.5	59.5	83.3	56.4	63.4	100.0	65.9	65.4	37.5	60.6	
Brigham Young University.....	4,373	68.3	79.3	72.9	70.9	70.0	75.4	82.7	66.7	80.0	84.6	86.7	85.1	
Howard University (Negro).....	217	78.5	85.7	80.9	100.0	70.0	85.7	63.6	88.8	75.0	83.7	90.3	86.7	
Rensselaer Polytechnic Institute.....	430	51.3	51.3	51.3	60.9	60.9	60.9	62.9	62.9	62.9	60.9	60.9	60.9	
Rutgers University.....	864	46.7	51.5	47.9	46.2	36.4	44.7	50.0	41.8	49.2	44.3	50.0	44.9	
Syracuse University.....	1,115	50.6	47.7	49.4	51.1	58.0	53.5	55.2	50.0	54.2	54.6	50.0	53.9	
Tulane University of Louisiana.....	750	80.6	83.3	81.2	83.9	92.3	85.5	77.3	83.3	78.5	85.0	81.8	84.4	
University of Chicago.....	723	69.5	84.3	74.7	84.2	75.0	81.5	64.7	83.3	72.4	70.3	70.6	70.4	
University of Denver.....	411	78.2	78.5	78.4	66.7	50.0	62.2	69.2	75.0	70.0	84.1	58.3	79.7	
University of Detroit.....	390	76.3	75.0	76.2	77.7	100.0	78.2	74.1	71.4	74.1	77.5	77.5	77.5	
Washington University.....	1,614	74.3	76.5	75.0	70.6	57.1	66.7	81.3	71.4	78.3	92.9	75.0	88.9	
Total.....	6,337	62.8	66.4	63.6	65.2	63.9	64.9	65.3	71.6	68.4	72.9	67.3	68.9	
Grand total.....	15,526	63.3	66.8	64.2	68.8	72.2	69.6	67.8	72.6	69.6	71.0	78.1	72.0	

¹ Age of entrance of 21 students not known.

² Age of entrance of 5 students not known.

³ Age of entrance of 60 students not known.

Larger percentages of students entering at mature age left institutions than those entering at immature age in each of the individual universities except three, a comparison of the figures in columns 5 and 26 of table 25 shows. In seven universities the percentage of students leaving the institutions whose age at entrance was 20 years or more exceeded that of students whose age at entrance was less than 17 years from 62.9 to 44.2, in eight from 38.2 to 23.0 percent, and in seven from 15.9 to 4.9 percent. The other three universities had an excess from 4.5 to 1.9 percent of students leaving the universities who entered at less than 17 years over those who entered at 20 years or more.

The particular entrance age at which the greater proportion of the students left the different universities varied but in most instances was one of the older ages. Information on this point is obtained by comparing the percentages in columns 5, 8, 11, 14, 17, 20, 23, and 26 of table 25 for each institution. There were nine universities in which the age at entrance with the highest percentage of students leaving the institution was 20 years or over, seven in which the age was 19 years 6 months to 19 years 11 months, five in which the age was 19 years to 19 years 5 months, two in which the age was 18 years 6 months to 18 years 11 months, one in which the age was 17 years to 17 years 5 months, and one in which the age was less than 17 years.

In the publicly controlled universities the percentage of students entering at the age of 20 years or over who left the institutions was 25.3 in excess of that of students entering at the age of 17 years or less, and in the privately controlled universities 23.2. Hence, a slightly higher percentage of the students of older ages left the former than the latter universities. The age at which the greater proportion of students left both the universities under public and private control was 20 years or over.

It is evident from the foregoing that a rather close relationship prevailed between age at entrance and student mortality. Among the older students the mortality was considerably higher than among the younger students. One of the probable explanations is that the students entering at early ages were generally more capable intellectually of performing the work necessary to remain in college than those entering at older ages as manifested by the very fact of their entrance at such early ages. Another possible explanation is that the older students had outside interests and responsibilities to a greater degree than younger students which so interfered with their collegiate work as to compel them to withdraw from the universities.

In the following figure are exhibited on a graphic scale the percentages of the students entering at various ages who left the universities as a whole.

The percentages given in the figure are the same as those at the bottom of columns 5, 8, 11, 14, 17, 20, 23, and 26 of table 25.

As the age at entrance of the students advanced the percentage of them leaving the universities advanced concomitantly with one exception, according to figure 8.

Of every 100 students who entered at less than 17 years, approximately 47 left the universities; at 17 years to 17 years 5 months, 53; at 17 years 6 months to 17 years 11 months, 55; at 18 years to 18 years 5 months, 57; at 18 years 6 months to 18 years 11 months, 64; at 19 years to 19 years 5 months, 69; at 19 years 6 months to 19 years 11 months, 68; and at 20 years or over, 72.

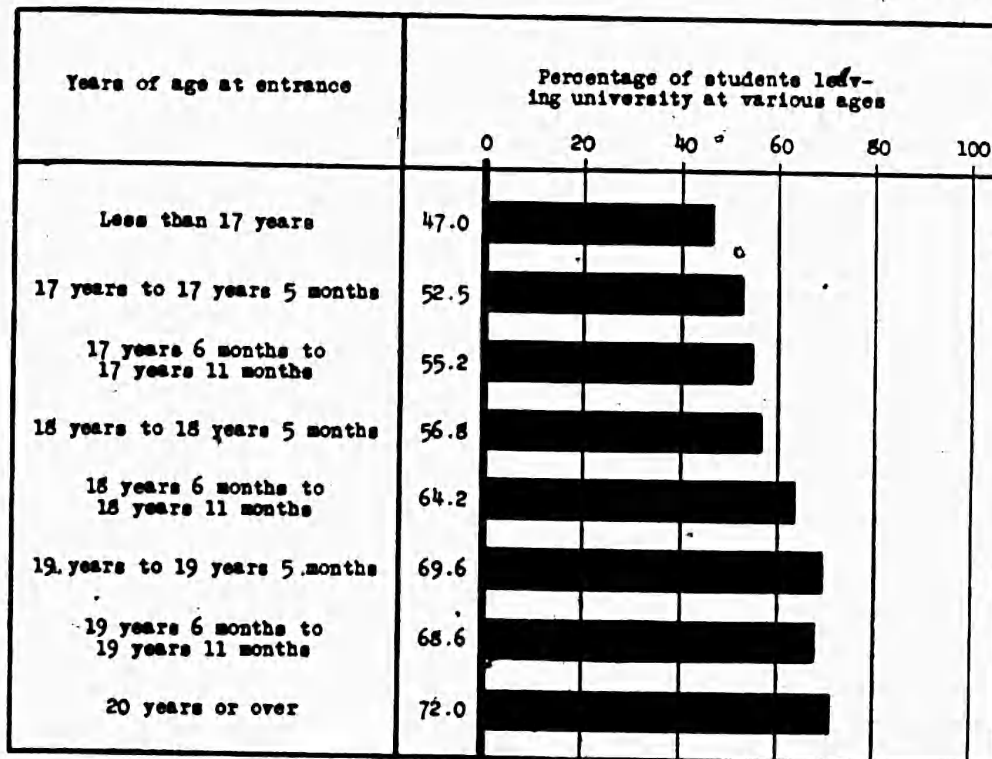


FIGURE 8.—Relationship of age at entrance to student mortality.

months, 70; at 19 years 6 months to 19 years 11 months, 69; and at 20 years or over, 72. Thus from 2 to 6 students more per 100 left the universities with each step-up in age of entrance except for the students entering at 19 years 6 months to 19 years 11 months. In this case about 1 student fewer per 100 left than at 19 years to 19 years 5 months.

LOCATION OF HOME

The main question involved in this subject is whether proportionately more of the students left the universities with homes located in close proximity to the institution than with homes located in more distant places. Table 26 with the data compiled on the same basis as table 25 shows the

percentages of the students with homes located in various places who left each of the individual universities, those under public and private control, and the group as a whole. The students are segregated by sex.

TABLE 26.—Student mortality according to location of home of students segregated as to sex in 25 universities classified by type of control

Institution	Number of students	Percentage of students leaving university with home located—											
		Within county in which institution is located			In county adjoining that in which institution is located			In other parts of State			In another State		
		Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14
PUBLICLY CONTROLLED													
Iowa State College.....	806	50.0	45.0	47.6	44.1	80.0	51.3	57.1	59.8	57.8	58.0	67.3	60.4
Massachusetts State College.....	282	45.8	46.7	46.2	44.4	47.7	45.8	38.1	52.4	40.7	53.3	100.0	61.1
New Mexico College of Agriculture and Mechanic Arts.....	145	65.1	30.7	50.0	50.0	100.0	66.7	74.4	58.8	70.0	74.1	87.5	77.1
Oklahoma Agricultural and Mechanical College.....	795	69.4	69.2	69.3	75.8	83.7	79.1	74.8	83.2	77.3	100.0	100.0	100.0
Pennsylvania State College.....	1,111	37.5	23.8	32.8	43.3	28.6	41.7	47.6	31.2	45.1	41.2	42.9	41.4
University of Colorado.....	641	77.0	59.7	69.5	78.3	55.0	67.4	66.7	71.0	68.3	92.3	81.9	88.2
University of Florida.....	788	48.0	-----	48.0	75.0	-----	75.0	66.3	-----	66.3	63.2	-----	63.2
University of Georgia.....	496	53.9	17.6	39.5	72.0	75.0	72.6	55.7	43.3	53.4	52.1	68.2	57.1
University of Illinois.....	2,236	54.6	54.6	54.6	54.0	55.5	54.4	65.8	66.2	65.9	80.1	70.8	61.6
University of Louisville.....	260	81.5	71.7	77.1	50.0	100.0	66.7	100.0	80.0	85.7	85.7	90.0	87.5
University of Mississippi.....	160	57.2	61.1	60.0	62.5	66.7	63.7	56.7	58.8	57.0	66.7	100.0	70.0
University of Tennessee.....	556	79.5	72.3	76.6	74.1	80.0	76.6	85.7	70.2	82.3	82.8	77.8	81.6
University of Toledo.....	595	81.7	69.9	76.9	-----	-----	-----	85.7	100.0	88.2	-----	66.7	50.0
University of Wyoming.....	328	50.0	67.8	58.6	71.1	82.8	76.2	71.4	89.6	78.4	84.1	75.0	81.2
Total.....	9,199	69.1	62.7	66.6	69.5	68.3	62.3	62.5	63.9	62.4	65.4	73.9	67.7
PRIVATELY CONTROLLED													
Boston University.....	450	52.7	53.3	52.8	54.5	52.1	54.2	52.1	71.4	54.5	62.7	28.6	57.3
Brigham Young University.....	1,373	73.9	86.4	79.2	67.5	80.9	72.4	86.7	80.0	84.0	72.2	75.0	73.0
Howard University (Negro).....	217	78.4	66.6	73.1	-----	-----	-----	-----	-----	-----	67.9	72.5	70.4
Rensselaer Polytechnic Institute.....	430	50.0	-----	50.0	55.6	-----	55.6	46.1	-----	46.1	51.7	-----	51.7
Rutgers University.....	864	42.9	45.7	43.6	34.9	30.6	33.6	43.9	43.1	43.5	57.1	47.8	53.5
Syracuse University.....	1,115	47.2	35.7	42.4	59.4	35.3	51.0	48.6	48.7	48.3	53.5	50.0	52.1
Tulane University of Louisiana.....	750	71.8	55.5	66.8	77.7	66.6	75.0	73.0	61.5	69.8	89.7	69.7	79.7
University of Chicago.....	723	58.5	65.3	61.7	50.0	60.0	55.0	83.3	72.7	79.3	63.2	77.8	67.3
University of Denver.....	411	72.7	60.8	67.4	55.5	80.0	64.1	71.4	77.7	73.4	90.0	91.6	90.6
University of Detroit.....	390	73.4	87.5	73.7	69.6	-----	69.6	62.5	-----	62.5	73.4	-----	73.4
Washington University.....	614	60.3	50.2	56.3	64.0	75.0	67.6	54.5	85.7	66.7	82.4	54.6	75.6
Total.....	6,337	63.2	57.9	61.3	62.7	47.8	60.1	62.1	61.0	61.0	65.1	63.2	64.5
Grand total.....	15,536	63.4	59.5	63.2	65.1	60.0	60.5	60.5	60.5	60.7	65.2	67.1	65.8

¹ Location of home of 1 student not known.

² Location of home of 25 students not known.

Students with homes in another State had higher percentages leaving 21 of the 25 individual universities than students with homes within the county

in which the institution is located, according to the figures in columns 5 and 14 of table 26. The percentages of the former students who left the institutions exceeded those of the latter from 30.7 to 23.2 in 3 universities, from 19.3 to 12.8 in 7, and from 10.4 to 1.7 in 11. Thus a greater mortality is found among the students who came from homes at great distances from the institution than among those who came from homes immediately adjacent. Lower percentages of the students with homes in another State left the other four universities than of students with homes within the county in which the institution is located.¹ Differences in the percentages, however, were not great except in the case of one university.

Furthermore, with an increase in the distance of the homes of the students from the institution, there was a corresponding increase in the percentages of the students leaving most of the individual universities. This is shown by comparing the percentages in column 8 with column 5, 11 with 8, and 14 with 11 of table 26. As typifying this situation one institution may be cited. In Iowa State College 47.2 percent of the students with homes within the county in which the institution is located left the college. The percentage of the students with homes in the county adjoining that in which the institution is located leaving the college exceeded that of the students with homes within the county in which the institution is located by 3.7; the percentage of the students with homes in other parts of the State exceeded that of the students with homes in the county adjoining that in which the institution is located by 6.5; and the percentage of students with homes in another State exceeded that of the students with homes in other parts of State by 2.6.

In the publicly controlled universities the percentage of the students with homes in another State leaving the institutions exceeded that for the students with homes within the county in which the institution is located by 1.1 and in the privately controlled by 2.6. For the group of universities as a whole the excess percentage was 2.6. Both publicly controlled and privately controlled universities as well as the universities as a whole had slightly smaller percentages of students with homes in a county adjoining that in which the institution is located and in other parts of the State leaving the institutions, than with homes within the county in which the institution is located. This tends to indicate that the distance of the home of the student was not such an influencing factor in student mortality when the data for all the universities were combined.

¹ These institutions were the University of Toledo, Brigham Young University, Howard University, and the University of Chicago.

PLACE OF LODGING

Whether proportionately more students whose lodging place was of one type left the universities than those whose lodging place was of another type is indicative in some measure of the extent of correlation between place of lodging and student mortality. In table 27 are presented data on this question drawn up along the same plan as followed in the preceding tables. The table shows the percentages of students classified by sex lodging in various places who left the individual universities, the publicly controlled and privately controlled universities, and the universities as a whole.

Because of the fact that in some of the universities certain places of lodging for students were nonexistent, caution must be taken in interpreting the percentages in table 26. For example, the universities located in open rural country offered very few opportunities for the students to lodge at home with parents and at rooming houses. Similarly, a number of universities had comparatively few dormitories available for the lodging of their students. There is a possibility, therefore, that the percentages were unduly skewed in one direction or the other because of the few cases represented.

Attention must also be called to the fact that in the case of certain universities students were not permitted to lodge at fraternity or sorority houses during their freshman year. Since the highest mortality occurred in the freshman year, the percentages for students lodging in fraternity or sorority houses failed to include freshman students in some instances, while the percentages for students lodging in other places included them.

In addition to the various places of lodging shown in table 27, data were collected on students lodging with relatives or friends and lodging at other places, such as cooperatively operated cottages, apartments, barracks, and the like. These places of lodging were omitted from the table because of the relatively small number of students involved and the questionable value of the figures for comparative purposes.

TABLE 27.—Student mortality according to place of lodging of students segregated as to sex in 22 universities classified by type of control

Institution	Number of students	Percentage of students leaving university whose place of lodging was at—											
		Home with parents			Rooming house			College dormitory			Fraternity or sorority house		
		Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14
PUBLICLY CONTROLLED													
Iowa State College.....	806	45.4	39.5	42.7	62.2	61.5	62.1	63.1	77.3	72.3	46.1	30.0	43.1
Massachusetts State College.....	283	50.0	50.0	50.0	44.7	62.5	50.0	84.6	56.5	71.4	22.4	21.1	22.1
New Mexico College of Agriculture and Mechanic Arts.....	145	57.1	46.2	52.9	50.0	.....	50.0	88.1	81.2	86.2	50.0	66.7	52.2
Oklahoma Agricultural and Mechanical College.....	795	69.4	73.7	71.0	78.1	85.9	80.3	74.2	75.4	74.8	68.9	80.9	71.3
Pennsylvania State College.....	1,111	24.1	11.8	19.4	46.8	56.7	55.8	71.6	45.1	58.0	43.5	7.9	40.5
University of Colorado.....	641	78.3	58.5	69.0	69.9	81.1	75.5	.....	.....	.....	74.4	56.9	68.4
University of Florida.....	788	41.7	.....	41.7	73.8	.....	73.8	60.0	.....	60.0	57.9	.....	57.9
University of Georgia.....	496	55.7	30.3	46.8	59.6	40.0	58.0	48.8	51.8	50.0	62.5	38.9	56.1
University of Illinois.....	2,236	55.2	50.0	52.8	67.7	70.1	68.2	66.2	76.3	71.2	59.4	59.2	59.3
University of Louisville.....	1,260	81.5	71.4	76.9	85.7	100.0	88.8	.....	.....	.....	50.0	.....	50.0
University of Mississippi.....	160	57.1	64.3	61.9	50.0	.....	50.0	60.2	63.2	60.7	.....	.....	.....
University of Toledo.....	569	84.7	72.1	79.7	.....	.....	.....	.....	.....	.....	.....	.....	.....
University of Wyoming.....	321	60.0	80.0	68.0	76.9	.....	76.9	82.6	100.0	91.8	75.0	66.7	70.7
Total.....	8,611	69.7	60.7	66.1	64.9	72.9	66.2	65.7	68.4	69.8	64.2	50.7	63.6
PRIVATELY CONTROLLED													
Boston University.....	1,450	54.6	48.9	53.9	86.9	50.0	77.4	.....	.....	.....	45.8	100.0	48.0
Howard University (Negro).....	217	72.0	66.7	69.5	75.0	.....	75.0	64.1	64.4	64.3	.....	.....	.....
Rensselaer Polytechnic Institute.....	430	54.8	.....	54.8	53.1	.....	53.1	60.2	.....	60.2	34.2	.....	34.2
Rutgers University.....	864	38.1	42.3	39.0	47.3	.....	47.3	69.5	40.6	46.5	39.0	.....	39.0
Syracuse University.....	1,115	46.3	41.2	44.2	59.4	55.3	58.3	53.1	64.8	62.1	33.9	23.6	29.7
Tulane University of Louisiana.....	750	70.6	53.7	64.7	69.7	50.0	67.6	.....	73.4	73.4	87.9	.....	87.9
University of Chicago.....	723	64.0	60.7	64.9	52.0	76.5	61.6	58.5	60.0	59.1	56.3	.....	53.3
University of Denver.....	411	72.6	61.2	67.3	100.0	33.3	71.4	.....	100.0	100.0	57.1	100.0	62.5
University of Detroit.....	390	72.6	87.5	73.3	75.0	.....	75.0	.....	.....	.....	.....	.....	.....
Total.....	8,340	60.2	55.9	58.9	68.4	60.0	58.7	61.0	55.9	57.7	49.6	25.7	40.1
Grand total.....	12,951	63.4	58.2	61.6	63.7	69.8	64.8	64.4	61.7	63.0	53.9	43.6	51.0

¹ Place of lodging of 5 students not known.

² Place of lodging of 33 students not known.

³ Place of lodging of 57 students not known.

There were nine of the individual universities in which a larger percentage of the students left the institution, whose place of lodging was a rooming house, than any of the other places of lodging, a comparison of the percentages in columns 5, 8, 11, and 14 of table 27 reveals. Correspondingly, in eight universities the larger percentage was for the students lodging at a college dormitory, in three for the students lodging at home with parents, and in two for the students lodging at a fraternity or sorority house. Approximately three-fourths of the universities, therefore, had the highest mortality among the students lodging at a rooming house and at a college dormitory. The lowest mortality was among the students lodging at home with parents and at a fraternity or sorority house.

Differences in the percentages were great in the case of some universities and moderately small in others. For example, in the New Mexico College of Agriculture and Mechanic Arts, the percentage of students leaving the institution whose place of lodging was at a college dormitory was 36.2, 34, and 33.3 greater than those for students whose place of lodging was at a rooming house, at a fraternity or sorority house, and at home with parents, respectively. In the Oklahoma Agricultural and Mechanical College, students who lodged at a rooming house had excess percentages of 10, 9.3, and 5.5 leaving the institutions over students lodging at a fraternity or sorority house, at home with parents, and at a college dormitory, respectively.

Students lodging at a fraternity or sorority house had the lowest percentage leaving the institutions in both the publicly and privately controlled universities. Approximately the same percentages lodging at home with parents, at a rooming house, and at a college dormitory left the universities under the two types of control. For the universities as a whole, students lodging at a fraternity house had the smallest mortality. The percentage of students lodging at a fraternity or sorority house who left the institutions was 13.2 less than that of students lodging at a rooming house, 11.4 percent less than that of students lodging at a college dormitory, and 10 percent less than that of students lodging at home with parents, according to the percentages given at the bottom of columns 5, 8, 11, and 14 of table 27.

Differences between men and women students are of interest. For the universities as a whole it is found that the percentage of men students lodging at home with parents who left the institutions exceeded that of women students by 5.2. On the other hand, the percentage of women students lodging at a rooming house who left the institutions was higher than that of men students by 6.1. The percentage of men students leaving the institutions exceeded that of women students by 2.7 in the case of

students lodging at a college dormitory and by 7.4 in the case of students lodging at a fraternity or sorority house. This information is based on a comparison of the percentages at the bottom of columns 3 and 4, 6 and 7, 9 and 10, 12 and 13 of table 27.

PARTICIPATION IN EXTRACURRICULAR ACTIVITIES

Data on the question of whether the participation in extracurricular activities by students was related to their withdrawal from the universities were compiled in a different way than in the case of the other factors just considered.

Instead of showing the total number of students and the percentages of them who left the universities, the data were tabulated on a basis of the total number of students who left the universities distributed according to the percentages of them participating and not participating in extracurricular activities and the percentages of them participating in each of the particular activities. The results are contained in table 28. Students are classified by sex and institutions by type of control. The data for the universities as a whole are also given. Special attention must be called to the fact that the percentages for each of the particular extracurricular activities shown in the table include duplicates or students participating in more than one of the activities.

Percentage of students leaving university who participated in--

Percentage of students leaving university who participated in--																
Institution	Number of students	Debating			Dramatics			Musical clubs			College paper			Other activities		
		Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
1	2	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
PUBLICLY CONTROLLED																
Massachusetts State College	126				1.2		0.9	4.8		3.2				11.9	9.5	11.1
New Mexico College of Agriculture and Mechanic Arts	97								18.5	11.3						
University of Colorado	455	1.4	0.6	0.9	7	2.3	1.3	8.6	3.4	3.1	2.9	3.4	3.3	27.1	22.2	25.9
University of Florida	514	2.5		2.5	1.6		1.6	2.9		2.9	2.1		1.6	12.2		12.8
University of Georgia	208							2.9	4.0	3.1	1.4	2.0	1.6	16.2		13.5
University of Illinois	1,423		.5	.1	5	2.5	5	1.2	2.0	1.4	1.9	2.5	2.4	10.8	17.9	12.8
University of Louisiana	204				9	2.2	1.5	1.7	3.4	2.6				3.4	5.7	4.3
University of Mississippi	94				1.4		1.1	2.9	4.2	3.2	2.9	8.3	4.3	20.0	20.8	20.1
University of Tennessee	442				1.0	7.6	2.9	3	8.8	5.5	3.3	4.5	3.6	2.8	3.9	3.2
University of Toledo	594	5	1.3		2.2	4.7	3.2	3.6	6.9	4.9	2.2	5.2	3.3	12.6	26.3	18.0
University of Wyoming	245	1.4	.9	1.2	2.8	5.7	4.1	2.8	4.7	3.7	2.8	6.7	4.5	22.3	16.9	18.7
Total	4,483	.7	.6	.7	1.0	2.9	1.5	2.3	3.7	2.7	2.3	3.4	2.6	11.8	15.3	12.8
PRIVATELY CONTROLLED																
Boston University	1,363	1.4		1.2	9		8	6.0	10.3	6.5	3.7	3.4	3.7	12.9	13.7	13.0
Howard University (Negro)	155				3.7	1.3	2.6	3.7	4.2	3.9	1.2	2.8	1.9	16.2		8.4
Rensselaer Polytechnic Institute	217				9		9	1.8		1.8	1.9		1.9	11.6		11.6
Rutgers University	362	1.7	.8	1.4		1.6	.6	4.2	5.5	4.7	1.7	3.2	2.2	9.3	31.7	17.2
Syracuse University	528	1.0	.9	1.0				2.5	4.7	3.4	2.2	3.3	2.6	46.2	49.6	47.6
Tulane University of Louisiana	335	1.6	4.4	2.4	1.3	2.5	1.7	4.8	8.8	6.0	1.9	3.6	1.5	5.9	3.8	5.2
University of Chicago	1,643	1.6	1.0	1.3	6.0	5.8	5.9	4.4	2.9	3.7	3.2	1.5	2.4	14.4	19.4	16.6
University of Denver	287	3.6	3.4	3.5	2.4	3.3	2.8	2.3	4.2	3.1	.6	3.4	1.7	6.6	6.6	9.1
University of Detroit	283	4.3		4.3	2		7	2.7		3.7	.7	14.3	1.1	24.7	14.3	24.5
Total	13,373	1.8	1.7	1.1	1.5	2.5	1.8	3.4	5.1	3.7	1.9	2.5	2.1	17.3	22.6	18.9
Grand total	17,856	1.1	1.0	1.1	1.3	2.7	1.7	2.7	4.3	3.2	2.1	3.0	2.2	14.1	18.3	15.7

¹ Information on participation in extracurricular activities of 117 students, or 47.6 percent, not available.

² Information on participation in extracurricular activities of 185 students, or 40.4 percent, not available.

³ Information on participation in extracurricular activities of 302 students, or 9. percent, not available.

⁴ Information on participation in extracurricular activities of 604 students, or 4 percent, not available.

Of the students leaving most of the individual universities small percentages of them generally participated in extracurricular activities, according to column 5 of table 28. In 15 out of the 20 universities the percentages ranged from 34.1 to 13.5. This signifies that in three out of every four of the universities from approximately one-third to one-eighth of the students leaving them were participants in extracurricular activities. Reversing the picture it is found that from two-thirds to seven-eighths of the students did not participate in activities of this character. In the remaining five individual universities the percentages were higher, ranging from 57.7 to 40.6.

For the publicly controlled universities a little less than one-fourth of the students participated in extracurricular activities and for the privately controlled a little less than one-third. With respect to the group of universities as a whole, there were slightly more than one-fourth of the students who left the institutions participating in such activities. It is obvious, therefore, that the greater proportion of the students were nonparticipants rather than participants in extracurricular activities. In view of this fact, the assumption may be made that the factor of participation in extracurricular activities had little or no relationship to student mortality in most of the universities.

Of special interest are the percentages of the students leaving the universities who participated in particular activities, as shown in columns 8, 11, 14, 17, 20, 23, 26, 29, and 30 of table 28. There was one university in which 10.6 percent of the students who left the institution participated in football. In another 10.1 percent of the students leaving the institution participated in field sports and in another 8.5 percent in basketball. Smaller percentages of the students leaving the universities participated in nonathletic extracurricular activities than in athletic activities.

ENGAGEMENT IN PART-TIME WORK

Under this topic the principal question to which an answer is sought is whether proportionately more of the students who left the universities engaged in part-time work to defray all or part of their expenses than did not engage in such work. Considerable difficulty was encountered in collecting adequate data on this question.

In the first place, some of the students engaged in part-time work during brief periods of their collegiate career while for the remainder of the time they were able to continue in college without working to obtain funds. Since it was practically impossible to obtain detailed information of this character for each of the students leaving the universities, the necessity arose of including only those students engaging in part-time work during the semester or quarter when they left the institutions.

In the second place, a number of the universities did not keep records of the students who engaged in part-time work. This was the case with 12 universities. Four other universities were able to furnish partial information which was not sufficiently complete to be usable. As a result, figures were available for only nine of the universities.

Table 29 shows the number of students leaving each of these universities together with the percentages of them engaging and not engaging in part-time work. A subdivision has been made of the students engaging in part-time work so as to show the percentages defraying all of their college expenses and part of their college expenses by means of such work. The students are segregated by sex and the institutions by type of control. Percentages for the universities as a whole are included.

TABLE 29.—Student mortality according to engagement by students segregated as to sex in part-time work in 9 universities classified by type of control

Institution	Number of students	Percentage of students leaving university who—											
		Did not engage in part-time work			Engaged in part-time work defraying—								
					All of college expenses			Part of college expenses			All or part of college expenses		
		Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
1.	2	3	4	5	6	7	8	9	10	11	12	13	14
PUBLICLY CONTROLLED													
New Mexico College of Agriculture and Mechanic Arts.....	97	80.0	70.4	77.3	1.5	3.7	2.1	18.5	25.9	20.6	20.0	29.6	22.7
University of Florida.....	514	56.0	.....	56.0	4.0	.....	4.0	40.0	.....	40.0	44.0	.....	44.0
University of Georgia.....	261	60.2	84.0	64.9	7.6	.....	6.1	32.2	16.0	29.0	39.8	16.0	35.1
University of Mississippi.....	94	71.4	83.3	74.5	4.3	4.2	4.2	24.3	12.5	21.3	28.6	16.7	25.5
University of Wyoming.....	159	50.5	63.2	55.9	9.9	4.4	7.6	39.6	32.4	36.5	49.5	36.8	44.1
Total.....	1,125	59.3	73.4	61.4	5.1	2.9	4.8	35.8	23.7	33.8	40.7	26.6	38.6
PRIVATELY CONTROLLED													
Howard University (Negro).....	155	56.8	78.4	67.1	14.8	2.7	9.0	28.4	18.9	23.9	43.2	21.6	32.9
Rutgers University.....	363	63.7	84.1	72.5	6.7	.....	4.4	29.6	15.9	23.1	36.3	15.9	27.5
University of Denver.....	287	66.7	83.2	73.5	9.5	3.3	7.0	23.8	13.5	19.5	33.3	16.8	26.5
University of Detroit.....	283	73.6	42.9	72.8	1.8	.....	1.8	24.6	57.1	25.4	26.4	57.1	27.2
Total.....	1,088	67.2	81.6	71.5	6.4	1.8	5.1	26.4	16.6	23.4	33.8	19.4	28.5
Grand total.....	2,213	63.8	78.8	66.4	5.7	2.2	4.9	31.5	19.9	28.7	37.2	21.2	33.6

The individual universities varied as to the percentages of students leaving them who did not engage in part-time work and who engaged in part-time work, according to columns 5 and 14 of table 29. In the case of all nine universities, a large majority of the students did not engage in such

work. From about 77 to 56 out of every 100 students who left the individual universities did not engage in part-time work in contrast with about 44 to 23 out of every 100 who engaged in part-time work. For the universities as a whole approximately 66 out of every 100 students leaving the institutions did not engage in part-time work, while approximately 34 out of every 100 did so. This would appear to indicate that the engagement by the students in part-time work was not in any great degree an influencing factor in their withdrawal from the universities.

It will be noticed that the percentage of the students engaging in part-time work and leaving the publicly controlled universities exceeded that for the privately controlled by 10.1. As to differences by sex, the percentage of men students engaging in part-time work who left the universities as a whole was 16.0 higher than that of women students, according to the figures at the bottom of columns 12 and 13 of table 29. The percentages of the students leaving the universities who defrayed all their college expenses by part-time work were generally small. For example, about 5 out of every 100 students leaving the universities as a whole defrayed all their college expenses by this means as compared with 29 out of every 100 who defrayed part of their expenses and 66 out of every 100 who did not engage in any part-time work, as shown by the percentages at the bottom of columns 8, 11, and 5, respectively, of table 29.

[CHAPTER V]

Academic Achievement and Student Mortality

THE DETERMINATION of whether a causal relationship existed between academic achievement and student mortality constitutes one of the major phases of this study.

Should it be established definitely that the students who left the universities commonly were deficient in academic achievement or did poorly in their academic work, a clear-cut issue is presented. This issue may be stated as follows: Either these students did not possess the necessary qualifications to pursue successfully the academic program provided for them by the universities or the academic program, including the curriculum, methods of instruction, and other phases, was such as to lack the essential appeal to the interest of the students.

This problem was approached from three angles. The first concerned the load of academic work carried by the students. Before considering the connection between deficiency in academic achievement and student mortality, it was deemed necessary to discover as far as possible whether the academic load of the students might have been so burdensome as to be responsible for their withdrawal from the universities. The second consisted of showing the credit hours earned by the students who left the universities. The third comprised the main feature of the problem, that is, whether the academic marks made by the students who left the universities were lower than the marks of students who remained to graduate.

ACADEMIC LOAD OF STUDENTS

Twofold data were collected for the purpose of ascertaining whether the academic load carried by the students had any bearing on mortality. These data included: (1) credit hours registered for by the students in the semester or quarter when leaving the universities, and (2) average credit hours registered for per semester or quarter by the students who left the universities as compared with those who remained to obtain degrees.

Credit-hour load of students in semester or quarter when leaving university.— Under the plan of compiling data on this point, the total number of students leaving each university were distributed in accordance with the number of credit hours for which they were registered in the semester or quarter when they left the institution. The percentages of students registered for each of the various numbers of credit hours were then computed. By comparing these percentages it was possible to learn whether greater proportions of the students leaving the university carried heavy or light credit-hour loads in the semester or quarter when they withdrew.

In table 20 are given the results of such compilations for the individual universities. The percentages are shown for the various credit hours ranging from 10 hours or fewer to 19 hours or more. Students are segregated by sex and universities by type of control. Similar figures are included in the table for the universities as a whole.

TABLE 30.—Student mortality according to credit-hour load of students segregated as to sex in semester or quarter when leaving university in 21 universities classified by type of control

Institution	Number of students	Percentage of students whose credit-hours registered for in semester or quarter when leaving university consisted of—											
		12 credit-hours or fewer			13 credit-hours			14 credit-hours			15 credit-hours		
		Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14
PUBLICLY CONTROLLED													
Iowa State College.....	457	11.3	15.5	12.5	3.7	6.1	4.4	10.4	9.2	10.1	17.1	23.6	19.1
Massachusetts State College.....	126	1.2	2.4	1.6	2.9	10.2	2.1	5.7	4.8	1.1	7.1	4.8	6.3
New Mexico College of Agriculture and Mechanical Arts.....	97	4.2	20.8	3.0	10.9	3.6	10.4	11.9	11.2	4.1	8.6	14.8	10.3
Oklahoma Agricultural and Mechanical College.....	608	20.9	13.6	24.8	3.0	10.8	4.2	4.8	5.5	11.7	15.9	8.2	13.3
Pennsylvania State College.....	489	26.0	18.7	20.3	13.7	10.8	12.5	13.3	15.9	14.4	6.9	10.9	7.3
University of Colorado.....	455	22.6	18.7	20.3	13.7	10.8	12.5	13.3	15.9	14.4	6.9	10.9	7.3
University of Florida.....	514	4.4	12.2	4.4	3.6	8.7	3.5	12.6	17.6	12.6	20.2	27.3	20.2
University of Illinois.....	1,422	9.6	29.2	10.3	9.8	8.9	9.5	17.9	19.1	17.8	24.1	33.9	26.9
University of Louisville.....	204	22.6	29.2	25.4	4.4	8.9	6.3	15.7	19.1	17.2	28.7	25.8	27.5
University of Mississippi.....	94	1.4	4.2	2.1	5.7	2.3	4.3	5.7	1.5	4.3	34.3	12.5	28.7
University of Tennessee.....	442	26.6	13.7	22.4	5.1	10.4	10.3	11.7	12.2	2.5	16.2	47.3	25.3
University of Toledo.....	455	29.0	24.3	27.4	10.4	8.5	8.2	11.7	17.9	11.9	13.7	20.7	16.4
University of Wyoming.....	245	15.8	9.4	13.0	7.9	8.5	8.2	7.9	17.9	12.2	22.4	21.8	22.1
Total.....	5,608	15.7	16.2	15.6	7.1	7.9	7.5	11.5	12.7	11.9	18.1	25.0	20.0
PRIVATELY CONTROLLED													
Boston University.....	246	22.6	17.2	22.0	3.2	1.6	2.9	3.2	4.1	2.9	6.5	20.7	8.1
Howard University (Negro).....	155	74.1	83.7	78.7	6.1	4.4	3.3	4.9	8.8	4.5	7.5	10.9	9.0
Rutgers University.....	362	3.6	1.6	3.4	4.4	1.6	3.8	2.0	7.3	1.7	4.6	3.1	3.1
Syracuse University.....	528	12.7	11.4	12.2	5.7	15.1	9.5	7.3	7.5	7.4	14.2	16.5	15.1
Tulane University of Louisiana.....	535	12.5	18.7	14.4	3.5	8.1	4.9	5.3	9.4	6.5	10.1	21.9	13.6
University of Illinois.....	287	39.9	31.9	36.5	3.0	2.5	2.9	1.8	14.3	1.0	48.2	59.6	52.9
University of Detroit.....	283	10.5	14.3	10.6	14.5	1.6	14.2	10.9	14.3	10.9	17.4	17.4	16.9
Washington University.....	361	3.3	6.3	4.4	2.1	1.6	1.9	2.1	1.8	1.7	13.3	10.2	12.2
Total.....	2,757	16.2	19.9	17.4	4.9	6.1	6.3	5.1	4.3	4.8	19.7	19.7	16.0
Grand total.....	8,365	15.8	17.5	16.3	6.5	7.2	6.6	9.5	9.7	9.6	16.9	23.1	18.7

TABLE 30.—Student mortality according to credit-hour load of students segregated as to sex in semester or quarter when leaving university in 21 universities classified by type of control—Continued

Institution	Number of students	Percentage of students whose credit-hours registered for in semester or quarter when leaving university consisted of—											
		16 credit-hours			17 credit-hours			18 credit-hours			19 or more credit-hours		
		Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
1	2	15	16	17	18	19	20	21	22	23	24	25	26
PUBLICLY CONTROLLED													
Iowa State College.....	457	22.3	25.4	23.2	25.1	13.1	21.7	8.3	6.1	7.7	1.8	0.8	1.5
Massachusetts State College.....	126	9.5	14.8	6.3	23.8	23.7	24.0	22.6	26.2	24.0	35.8	38.1	36.7
New Mexico College of Agriculture and Mechanical Arts.....	97	11.4	20.5	12.4	12.9	55.6	24.8	21.4	7.4	17.5	32.9	7.4	25.7
Oklahoma Agricultural and Mechanical College.....	608	15.8	18.2	17.4	12.2	15.5	13.3	8.0	9.2	8.4	5.0	4.4	4.8
Pennsylvania State College.....	489	4.4	18.2	5.9	20.1	30.9	21.3	8.5	9.1	8.6	26.3	7.2	24.1
University of Colorado.....	455	20.8	15.8	18.9	8.9	9.2	9.0	2.8	1.7	2.4	2.1	.6	1.6
University of Florida.....	514	23.3	18.5	23.3	10.3	5.4	10.6	18.1	2.3	4.4	7.6	1.5	7.6
University of Illinois.....	1,422	18.6	6.8	18.5	12.5	10.1	14.8	5.3	37.5	14.9	15.7	16.6	16.0
University of Louisville.....	204	10.4	25.0	19.1	12.9	4.2	10.6	7.1	4.6	14.7	22.3	7.7	17.9
University of Mississippi.....	94	17.2	21.4	16.3	7.4	3.8	6.5	19.0	4.9	6.2	2.2	7.7	4.4
University of Tennessee.....	442	14.1	15.9	18.0	8.2	11.6	9.4	6.9	7.5	10.2	2.2	7.7	1.2
University of Toledo.....	455	19.4	19.8	14.7	20.8	15.1	18.4	12.2	7.5	6.2	2.2	7.7	1.2
University of Wyoming.....	245	10.8	17.8	17.0	13.8	11.6	13.2	9.5	6.7	8.5	7.0	3.3	6.3
Total.....	5,009	16.7	17.8	17.0	13.8	11.6	13.2	9.5	6.7	8.5	7.0	3.3	6.3
PRIVATELY CONTROLLED													
Boston University.....	246	22.6	24.1	22.7	14.3	20.7	15.0	13.4	13.8	13.4	14.2	3.5	13.0
Howard University (Negro).....	155	4.9	2.5	2.5	2.5	1.3	1.9	22.5	5.6	16.5	19.9	8	17.8
Rutgers University.....	362	6.7	67.4	27.5	40.3	22.2	33.8	22.5	9	4.8	17.1	5.2	12.3
Syracuse University.....	528	21.1	32.6	25.6	14.6	10.8	11.1	7.3	2.5	9.2	28.6	4.4	21.3
Tulane University of Louisiana.....	535	23.2	6.2	18.1	4.8	28.8	12.0	12.0	6	6.7	8.3	14.3	8.5
University of Illinois.....	287	4.2	2.5	3.6	2.3	3.5	2.8	6.9	2.4	5.3	27.9	5.5	19.9
University of Detroit.....	283	22.8	42.8	23.4	8.7	14.3	8.8	6.8	2.4	6.7	8.3	14.3	8.5
Washington University.....	361	42.4	72.4	52.9	2.1	8	1.7	6.8	2.4	5.3	27.9	5.5	19.9
Total.....	2,777	20.6	31.5	23.9	11.8	13.9	12.2	9.8	2.3	7.5	11.9	3.3	12.0
Grand total.....	8,345	17.9	22.7	19.3	13.3	13.0	12.9	9.6	4.5	8.1	10.6	3.3	8.5

Of the total students leaving four of the universities a larger percentage of them was registered for 19 or more credit-hours than for any other number of hours in the semester or quarter when they left the institution, a comparison of columns 5, 8, 11, 14, 17, 20, 23, and 26 of table 30 reveals. Such a large number of credit-hours is generally regarded as a heavy load.

In seven universities the larger percentage of the students was registered for 15 credit-hours, in five for 10 credit-hours, and in one for 17 credit-hours. These numbers of credit-hours represent about the normal credit-hour load carried by college students. In five other universities, the larger percentage of the students was registered for 12 credit-hours or fewer—a light load. It is evident, therefore, that the larger proportions of the students leaving the great majority of the universities carried either light or normal loads rather than heavy loads in the semester or quarter when they left the institutions.

Attacking the question in another way, the percentage of the students leaving the publicly controlled universities who were registered for 12 credit-hours or fewer in the semester or quarter when they left the institutions exceeded that of the students registered for 19 or more credit-hours by 8.4 percent. This difference is obtained by subtracting the percentage in column 26 from that in column 5 of table 30. In the same manner, an excess of 4.5 percent is found for the students leaving the privately controlled universities who were registered for 12 credit-hours or fewer over that for the students registered for 19 or more credit-hours. For the universities as a whole, this excess was 7.8 percent.

Thus, in the case of both the publicly controlled and privately controlled universities and of the universities as a whole, proportionately more of the students leaving the universities had light loads of academic work in the semester or quarter when they withdrew than heavy loads.

Average credit-hour load per semester or quarter registered for by students.—The method used in tabulating the data on this question consisted of first obtaining the average credit-hours registered for per semester or quarter by all the students originally entering each of the universities. Such information was secured by adding the credit-hours registered for during the semesters or quarters the student was in attendance and dividing the total by the number of semesters or quarters.

Upon completing this procedure the students were next distributed according to the number of average credit-hours registered for per semester or quarter from 12 or fewer hours to 19 or more hours. Of the total students for each of the various average credit-hours, the percentage of those who left the universities was then calculated. Table 31 exhibits the results for the individual universities, for the publicly controlled and the privately controlled universities, and for the universities as a whole with the students segregated by sex.

TABLE 31.—Student mortality according to average credit-hour load of students segregated as to sex for semester or quarter in 21 universities classified by type of control

Institution	Num-ber of stu-dents	Percentage of students leaving university whose average credit-hours registered for per semester or quarter consisted of—											
		12 credit-hours or fewer			13 credit-hours			14 credit-hours			15 credit-hours		
		Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
1	3	4	5	6	7	8	9	10	11	12	13	14	
PUBLICLY CONTROLLED													
Iowa State College.....	806	97.3	100.0	98.0	100.0	60.0	76.5	62.1	78.9	68.7	71.7	75.0	72.9
Massachusetts State College.....	282	75.0	75.0	75.0	100.0	100.0	100.0	100.0	50.0	80.0	100.0	100.0	100.0
New Mexico College of Agriculture and Mechanic Arts.....	145	95.7	95.6	95.7	90.7	94.7	91.8	78.2	89.3	80.9	60.0	42.8	50.0
Oklahoma Agricultural and Mechanical College.....	795	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	80.0	79.6	78.4
Pennsylvania State College.....	1,111	98.5	95.8	97.8	100.0	100.0	100.0	90.9	81.8	87.3	69.3	50.0	71.4
University of Colorado.....	641	78.8	100.0	100.0	93.7	100.0	93.7	67.6	70.8	67.6	69.3	65.6	69.0
University of Florida.....	2,235	97.6	95.3	95.2	85.0	84.8	85.0	78.9	70.8	76.6	64.6	62.1	63.7
University of Illinois.....	260	100.0	90.5	94.3	100.0	80.0	95.2	100.0	100.0	100.0	74.0	67.3	70.5
University of Louisville.....	160	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
University of Mississippi.....	546	76.2	61.5	72.7	85.0	66.7	79.3	81.3	53.8	73.3	88.3	88.0	88.2
University of Tennessee.....	592	91.8	90.0	93.0	95.2	92.9	94.6	76.6	73.9	82.5	73.3	58.8	90.1
University of Toledo.....	328	100.0	100.0	100.0	100.0	87.5	95.0	71.4	76.9	73.2	66.0	79.6	73.1
University of Wyoming.....	328	100.0	100.0	100.0	100.0	87.5	95.0	71.4	76.9	73.2	66.0	79.6	73.1
Total.....	8,889	93.8	94.3	93.8	90.9	86.9	89.8	78.4	79.2	78.7	69.8	67.8	69.1
PRIVATELY CONTROLLED													
Boston University.....	450	88.9	66.7	85.7	61.1	0.0	47.8	25.4	25.0	25.3	45.2	62.5	48.0
Howard University (Negro).....	217	100.0	100.0	100.0	77.7	100.0	84.6	61.6	66.6	63.3	40.0	21.4	29.1
Rutgers University.....	863	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	66.7	100.0	72.7
Syracuse University.....	1,112	100.0	100.0	100.0	100.0	93.3	95.2	92.0	83.3	87.3	50.5	42.9	46.4
Tulane University of Louisiana.....	750	100.0	100.0	100.0	62.8	80.0	68.0	87.7	54.2	71.1	64.4	41.0	53.5
University of Denver.....	415	93.3	88.6	91.6	71.4	33.3	66.7	80.6	70.8	82.1	59.1	55.3	57.1
University of Detroit.....	390	91.4	100.0	91.7	86.9	86.9	86.9	36.5	100.0	37.3	94.1	0.0	92.3
Washington University.....	614	100.0	100.0	100.0	75.0	75.0	75.0	77.8	90.0	84.2	45.5	26.1	35.6
Total.....	4,811	96.5	96.4	96.9	75.2	72.5	74.6	57.5	66.7	60.5	58.8	43.5	51.7
Grand total.....	13,500	94.5	94.6	94.6	86.1	83.3	85.4	72.3	75.1	73.2	69.8	58.9	63.8

Percentage of students leaving university whose average credit-hours registered for per semester or quarter contained of—

Institution	Number of students	16 credit-hours			17 credit-hours			18 credit-hours			19 or more credit-hours		
		Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
PUBLICLY CONTROLLED													
Iowa State College.....	806	61.7	50.5	57.7	45.2	30.4	43.5	14.3	0.0	14.9	33.3	88.9	33.3
Massachusetts State College.....	282	100.0	100.0	100.0	56.0	69.2	60.5	32.3	28.6	31.3	56.3	100.0	68.0
New Mexico College of Agriculture and Mechanical Arts.....	145	72.2	25.0	53.3	53.8	89.4	68.8	63.3	50.0	62.5	100.0	100.0	100.0
Oklahoma Agricultural and Mechanical College.....	795	70.9	77.0	73.3	56.2	73.7	63.0	66.2	57.1	65.1	33.3	100.0	53.6
Pennsylvania State College.....	1,111	36.4	23.2	29.9	52.8	36.7	46.6	50.3	26.9	46.7	44.5	23.0	43.7
University of Colorado.....	641	61.8	42.2	52.8	30.0	80.0	35.5	16.7	66.7	23.8	50.0	100.0	50.0
University of Florida.....	788	74.2	48.3	74.2	34.3	41.2	54.3	63.2	25.0	44.4	50.0	100.0	62.5
University of Illinois.....	2,235	50.4	48.3	49.9	32.7	66.7	33.5	46.7	70.0	64.3	16.7	14.3	18.1
University of Louisville.....	260	67.7	47.1	60.4	80.0	55.6	44.4	100.0	100.0	100.0	56.3	33.3	52.7
University of Mississippi.....	160	83.3	75.0	80.8	38.9	60.0	44.4	61.1	70.0	80.8	16.7	14.3	18.1
University of Tennessee.....	546	87.5	81.5	84.7	84.5	60.0	80.8	80.0	100.0	100.0	56.3	33.3	52.7
University of Toledo.....	592	80.0	66.1	73.2	88.9	45.5	58.8	70.6	50.0	65.2	50.0	100.0	50.0
University of Wyoming.....	328	56.7	80.0	68.1	82.7	81.8	82.5	50.0	66.7	52.0	50.0	100.0	50.0
Total.....	8,499	63.5	57.1	61.4	52.0	54.8	52.6	49.2	37.4	47.6	45.0	49.2	45.3
PRIVATELY CONTROLLED													
Boston University.....	450	71.3	47.1	67.3	55.4	75.0	57.1	52.9	60.0	53.6	77.8	66.7	76.2
Howard University (Negro).....	217	43.7	0.0	35.0	100.0	0.0	50.0	51.0	0.0	0.0	100.0	0.0	100.0
Rutgers University.....	863	36.8	51.6	48.2	50.6	82.1	40.0	51.0	10.0	48.4	28.8	0.0	28.3
Syracuse University.....	1,112	42.0	31.3	38.5	52.2	34.1	47.4	65.0	80.0	67.1	35.1	100.0	37.1
Tulane University of Louisiana.....	750	78.7	53.8	71.7	82.6	75.6	79.3	76.0	100.0	77.5	75.0	66.7	74.7
University of Denver.....	415	50.0	100.0	57.1	55.8	100.0	56.8	76.0	33.3	76.0	95.8	100.0	96.0
University of Detroit.....	390	75.0	100.0	75.9	70.0	48.3	62.9	55.9	33.3	52.9	44.2	33.3	42.9
Washington University.....	614	72.0	61.4	66.9	70.0	48.3	62.9	55.9	33.3	52.9	44.2	33.3	42.9
Total.....	4,811	60.3	47.2	54.3	57.6	48.7	52.4	60.0	50.0	59.1	34.6	50.0	44.9
Grand total.....	13,310	62.3	52.0	58.3	53.9	48.8	52.6	53.2	49.7	51.6	44.9	49.4	45.1

Students with a small number of average credit-hours per semester or quarter had in general higher percentages leaving the individual universities than students with a large number of such hours, according to columns 5 and 26 of table 31. For instance, there were 9 universities in which 100 percent of the students whose average credit-hours per semester or quarter consisted of 12 or fewer left the institutions as compared with 2 universities in which 100 percent of the students whose average credit-hours were 19 or more left the institutions. In none of the universities did less than 70 percent of the students registered for 12 or fewer average credit-hours per semester or quarter leave the institutions. On the other hand, 11 universities had less than 70 percent of the students registered for 20 or more average credit-hours who left the institutions.

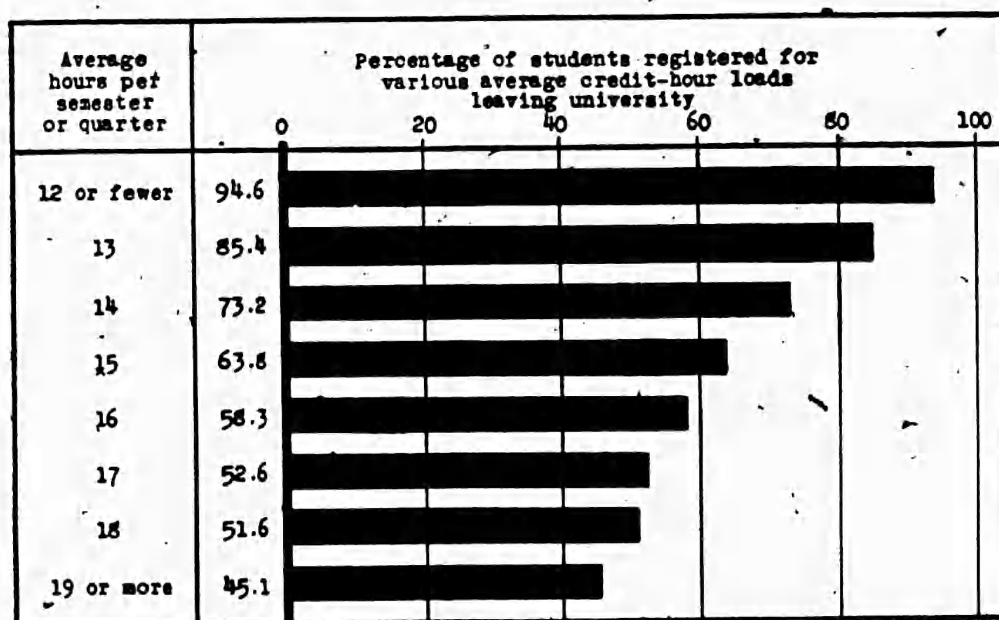


FIGURE 9.—Relationship of student load to student mortality.

Differences in mortality for students carrying the various average credit-hour loads per semester or quarter for the group of universities as a whole are shown graphically in the foregoing figure. The percentages appearing in the figure are those at the bottom of columns 5, 8, 11, 14, 17, 20, 23, and 26 of table 31.

A gradual diminution in the percentage of students leaving the group of universities as a whole occurred with each increase in the average credit hour load per semester or quarter, according to figure 9.

Of the students registering for 12 average credit-hours or fewer per semester or quarter, 94.6 percent left the universities. Of those registering for 13 credit-hours, there was 9.2 percent less left the universities than for 12 credit-hours or fewer; for 14 credit-hours, 12.2 percent less than for 13

hours; for 15 credit-hours, 9.4 percent less than for 14 hours; for 16 credit-hours, 5.5 percent less than for 15 hours; for 17 credit-hours, 5.7 percent less than for 16 hours; for 18 credit-hours, 1 percent less than for 17 hours; and for 19 or more credit-hours, 6.5 percent less than for 18 hours.

Considering the information just presented, there is little likelihood that a burdensome academic load was a responsible factor in causing the students to leave the universities. On the contrary, a greater mortality appeared to prevail among the students carrying light academic loads than among those with heavy loads. This was true both with respect to the average credit-hours per semester or quarter for which the students registered and to the number of credit-hours registered for in the semester or quarter when the students left the institutions.

CREDIT-HOURS EARNED BY STUDENTS LEAVING UNIVERSITIES

The extent to which the students who left the universities earned or failed to earn the credits for which they registered is a criterion in part at least of their efficiency or deficiency in academic work.

In compiling data on this question, only the credit-hours earned by the students in the semester or quarter when leaving the universities were considered. Of the total students leaving each university, the number and percentage of them who earned the same credit-hours as registered for were first obtained. The number and percentage who earned fewer credit-hours than registered for were next secured. The latter students were then distributed on a percentage basis in accordance with whether they earned 1 fewer hour than registered for to 10 or more fewer hours. The percentage of students who earned no credit-hours was also included.

Table 32 presents the number of students classified by sex who left each of the individual universities together with the percentages of them earning the same as or fewer credit-hours than registered for. Similar figures are given for the publicly controlled and the privately controlled universities and for the universities as a whole.

TABLE 32.—Student mortality according to credit-hours earned by students segregated as to sex in semester or quarter when leaving university in 21 universities classified by type of control

Percentage of students who during or at end of semester or quarter when leaving university earned—																									
Institution	Number of students	Same credit-hours as registered for—				Fewer credit-hours than registered for—				1 credit-hour less than registered for—				2 credit-hours less than registered for—				3 credit-hours less than registered for—				4 credit-hours less than registered for—			
		Men		Women		Men		Women		Men		Women		Men		Women		Men		Women		Men		Women	
		3	4	5	Total	6	7	8	Total	9	10	11	Total	12	13	14	Total	15	16	17	Total	18	19	20	Total
PUBLICLY CONTROLLED																									
Iowa State College.....	457	51.4	70.0	56.7	48.6	30.0	43.3	2.9					0.3	0.8	0.4	4.3	9.2	5.7	7.6	6.2	7.2				
Massachusetts State College.....	126	32.1	33.3	32.5	67.9	66.7	67.5						2.3	7.1	3.9	6.0	7.1	6.5							
New Mexico College of Agriculture and Mechanic Arts.....	97	38.6	74.1	48.4	61.4	25.9	51.6									14.3	14.8	14.4							
Oklahoma Agricultural and Mechanical College.....	608	38.8	67.0	48.4	61.2	33.0	51.6	1.5	1.9	1.6			2.0	1.0	1.6	13.4	14.6	13.8	5.0	3.4	4.4				
Pennsylvania State College.....	489	48.6	58.2	49.7	51.4	41.8	50.3	2.2	3.6	1.6			2.3		2.1	9.4	14.6	10.0	4.4	3.9	3.9				
University of Colorado.....	455	38.4	51.1	43.4	61.6	48.8	56.7	1.5	6	1.1			2.9	2.3	2.7	12.3	15.9	13.6	6.4	2.3	4.8				
University of Florida.....	514	38.5		38.5	61.5		61.5	6	6	6			1.2		1.2	13.6		9.1	1.2						
University of Illinois.....	1,422	36.8	58.2	42.6	63.2	41.8	57.4	2	5	3			3.4	1.1	2.7	10.4	5.6	9.1	4.1	4.3	4.1				
University of Louisville.....	204	39.2	52.9	45.1	60.8	47.1	54.9		4.2	1.1			4.3		3.2	12.9	16.8	14.8	1.1	1.1	5				
University of Mississippi.....	94	35.7	41.7	37.2	64.3	58.3	62.8			2			1.0	8	5.3	18.7	8.3	11.7	1.5	2.3	3.6				
University of Tennessee.....	442	19.0	40.5	25.4	81.0	59.5	74.6	3	3	2.6			4.8	6.1	5.3	3.8	7.9	5.3	5.4	3.1	4.6				
University of Toledo.....	454	31.8	41.4	35.2	68.2	58.6	64.8	2.8	3.1	2.6			3.6	3.8	3.7	5.7	5.7	5.7	2.9	3.8	3.3				
University of Wyoming.....	245	37.4	58.5	46.5	62.6	41.5	53.5	2.9	9	2.0															
Total.....	5,697	38.0	54.3	42.8	62.0	44.7	57.3	.9	1.0	1.0	2.3	2.0	2.2	10.0	10.3	10.1	4.0	2.2	3.8						
PRIVATELY CONTROLLED																									
Boston University.....	246	22.1	37.9	24.0	77.9	62.1	76.0	2.8	17.2	4.5			9.6		8.5	5.5	5.5	4.9	6.0	3.5	5.7				
Howard University (Negro).....	155	48.2	74.4	60.7	51.8	25.6	39.3						1.3		1.3	24.7	14.9	20.1	6.1	6.1	3.3				
Rutgers University.....	363	32.1	28.6	30.9	67.9	71.4	69.1		11.9	4.1			2.5	3.2	2.8	10.9	11.1	11.0	2.1	4.0	2.7				
Syracuse University.....	528	46.5	55.2	50.1	53.5	44.9	49.9	3.5	1.9	2.8			2.8	2.4	2.6	14.0	14.1	14.0	2.5	5.7	3.8				
Tulane University of Louisiana.....	535	23.7	23.8	23.7	76.3	76.2	76.3	6	1.8	1.1			1.0	1.3	1.7	13.4	15.6	14.0	1.6	1.3	1.5				
University of Denver.....	287	85.7	94.0	89.1	14.3	6.0	10.9	6	6	3			1.2		1.2	9.1	1.4	1.4	4.8		4.7				
University of Detroit.....	283	44.9	71.4	45.5	55.1	28.6	54.5	3.9		3.9			3.9	14.3	4.2	9.1	8.8	4.8	3.1	5.0					
Washington University.....	361	36.3	52.0	41.8	63.7	48.0	58.2	2.1	10.2	5.0			1.3	8	1.1	13.2	15.7	14.1	6.0	3.1	5.0				
Total.....	2,768	39.5	51.5	43.2	60.5	48.5	60.8	2.1	4.7	2.8	2.9	1.5	2.0	11.0	11.9	11.3	2.4	2.8	3.4	2.8	3.3				
Grand total.....	8,465	38.5	54.0	42.9	61.5	46.0	57.1	1.3	2.3	1.0	2.6	1.8	2.3	10.3	10.9	10.5	3.8	3.1	3.9						

Percentage of students who during or at end of semester or quarter when leaving university earned—

Institution	Num-ber of stu-dents	5 credit-hours fewer than regis-tered for—		6 credit-hours fewer than regis-tered for—		7 credit-hours fewer than regis-tered for—		8 credit-hours fewer than regis-tered for—		9 credit-hours fewer than regis-tered for—		10 or more credit-hours fewer than regis-tered for—		No credit-hours								
		Men	Wom-en	Men	Wom-en	Men	Wom-en	Men	Wom-en	Men	Wom-en	Men	Wom-en	Men	Wom-en	Total						
1	2	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
PUBLICLY CONTROLLED																						
Iowa State College.....	457	5.5	0.8	4.2	2.0	3.1	2.4	2.1	3.8	2.6	3.1	0.8	2.4	2.8	2.8	2.0	10.1	3.0	8.1	7.9	2.3	6.3
Massachusetts State College.....	126	3.6	7.2	4.8	3.6	2.5	3.2	2.4		1.6		2.5	3.2	8.3	14.3	10.3	28.6	19.0	25.3	9.5	7.1	8.7
New Mexico College of Agricul- ture and Mechanic Arts.....	97				11.3		8.2							12.8	7.4	11.3	11.3		8.2	11.3	3.7	9.2
Oklahoma Agricultural and Me- chanical College.....	608	3.5	1.0	2.6	8.0	4.9	6.9	3.5	1.8	3.1	5.0	1.0	3.6	4.2	1.0	3.1	13.4	2.4	2.9	1.7		1.2
Pennsylvania State College.....	489	3.7	1.8	3.5	5.1	7.3	5.3	1.6	1.8	1.6	2.1		1.8	3.0	3.6	3.1	5.3		4.7	14.3	9.1	13.7
University of Colorado.....	455	2.8	5.1	3.7	5.0	5.7	5.3	2.1	1.7	1.9	5.7	2.8	4.6	3.9	1.7	3.1	17.9	6.3	13.6	1.1	3.9	2.1
University of Florida.....	514	3.3		3.3	5.2		5.2	1.9		1.9	4.1		4.1	6.6		6.6	2.1		12.1	11.7		11.7
University of Illinois.....	1,422	5.2	4.3	4.9	4.7	2.0	4.0	2.2	1.5	2.0	3.7	3.6	3.7	2.0	1.3	2.9	9.7	3.8	8.1	17.6	13.6	16.7
University of Indiana.....	204	2.6	1.1	1.9	10.4	3.4	7.4	8.8		5.5	4.3		6.4	7.1	4.2	6.4	15.7	8.3	13.8	5.7	8.3	6.4
University of Mississippi.....	94	2.9		2.1	7.1	12.5	8.5				7.1	4.2	6.4	7.1	4.2	6.4	5.9	41.1	15.3	33.5	4.8	6.1
University of Tennessee.....	442	2.3	8.1	1.8	8.0	13.7	9.7	1.6	1.5	1.6	3.9		2.7	5.1	7.6	5.9	41.1	15.3	33.5	4.8	6.1	5.2
University of Toledo.....	454	4.1	2.8	4.5	2.8	1.2	2.3	1.4	1.2	1.4	2.8		1.9	2.8	1.6	1.9	12.7	6.8	10.6	24.8	23.8	24.4
University of Wyoming.....	245	3.6	4.7	4.1	4.3	3.8	4.1	2.1	1.9	1.6	2.7	2.8	1.6	2.9	1.9	2.4	18.7	2.8	11.8	15.2	10.4	13.2
Total.....	5,007	3.9	3.1	3.7	5.4	4.3	5.1	2.0	1.6	1.9	3.7	1.8	3.1	3.9	2.4	3.5	13.9	5.4	11.6	12.0	9.5	11.3
PRIVATELY CONTROLLED																						
Boston University.....	246	4.2	6.9	4.5	3.2	6.9	3.7	3.2		2.8	1.4	3.5	1.6	1.9		1.6	12.0	3.4	11.0	24.1	20.7	27.2
Howard University (Negro).....	155		2.8	1.3	1.2	1.3	1.3	6.2		1.3	3.8		1.6	1.2	1.3	1.3	1.2		6.0	8.7	4.0	6.4
Rutgers University.....	363	3.8	5.6	4.4	4.6	3.9	4.4	1.6	3.9	2.5	3.8	1.6	3.0	6.9	7.1	6.9	15.7	7.2	12.7	16.0	11.9	14.6
Syracuse University.....	528	1.6	1.4	1.5	8.9	4.7	7.2	1.6	2.8	2.1	1.3	1.4	1.3	5.1	2.4	4.0	5.4	3.8	4.7	6.8	4.3	5.9
Tulane University of Louisiana.....	535	1.9	5.0	2.8	5.6	9.4	6.7	1.1	2.5	1.5	4.8	3.1	4.3	5.3	3.7	4.9	19.2	13.1	17.4	21.6	19.4	21.0
University of Denver.....	287	1.2																		10.1	4.2	7.7
University of Detroit.....	283	3.9		3.9	6.6	14.3	6.7	4.8		4.7	1.4		1.4	2.5		2.5	9.1		8.8	5.1		4.9
Washington University.....	361	2.6	1.7	1.7	5.6	6.3	5.8	3.4		2.5	1.9		1.6	5.1	2.4	4.1	14.1	1.6	9.7	9.4	7.1	8.6
Total.....	2,758	2.5	2.6	2.6	5.2	4.9	5.1	2.4	2.0	2.3	2.2	1.3	1.9	4.9	2.8	3.6	11.1	4.8	9.1	13.7	9.1	12.3
Grand total.....	8,345	3.5	2.9	3.3	5.3	4.5	5.1	2.1	1.7	2.0	3.1	1.6	2.7	3.8	2.5	3.5	13.0	5.2	10.8	12.5	9.4	11.7

Proportionately more of the students leaving 17 of the 21 universities earned fewer credit-hours than registered for in the semester or quarter when they left than earned the same credit-hours as registered for, columns 5 and 8 of table 32 disclose.

In three of these universities the percentage of students earning fewer credit-hours who left the institution exceeded that of students who earned the same credit-hours from 52.6 to 49.2, in five from 38.2 to 25.6, in three from 16.4 to 13.3, and in six from 9.8 to 0.6. With respect to the other four universities, an excess percentage of 21.4 to 0.2 was found in three of them for students earning the same credit-hours over those earning fewer credit-hours. In the fourth university this excess was 78.2 percent.

Looking at the publicly controlled and the privately controlled universities, it is found that the percentages of students leaving these institutions who earned fewer credit-hours were 14.4 and 13.6 higher, respectively, than those of students who earned the same credit-hours as registered for. For the universities as a whole, there was an excess of 14.2 percent. This means that approximately 14 more students per 100 leaving all the universities earned fewer credit-hours than earned the same credit-hours as registered for. It is thus fairly manifest that the predominant proportion of the students leaving the universities were deficient in their academic work to the extent of failing to earn the same credit-hours for which they registered in the semester or quarter when they left the institutions.

Of special concern are the percentages of students who earned the different amounts of fewer credit-hours than registered for, as shown in columns 8, 11, 14, 17, 20, 23, 26, 29, 32, 35, 38, and 41 of table 32. About 1 out of every 10 students leaving the universities as a whole earned 3 credits fewer than registered for as compared with about 1 out of every 20 students who earned 6 credit-hours fewer. Interpreting these figures from another standpoint reveals some interesting information. Since 3 credit-hours represent the customary number of credits for a semester course and 6 credit-hours for two such courses, the assumption seemingly may be made that twice as many of the students in general failed in one course as failed in two courses in the semester when they left the universities. It will be noted that 11.7 percent, or approximately one out of every nine students leaving the institutions, earned no credit-hours in their last semester or quarter of attendance.

MARKS OF STUDENTS IN ACADEMIC WORK

In attempting to discover whether the students leaving the universities made lower marks in their academic work than the students remaining to graduate, it was necessary to adopt a common unit of measurement applicable to all of them. Since the students left the universities at different

times throughout the 4-year period, the unit had to be such as to show the marks on a comparable basis for students pursuing academic work for 1, 2, 3, 4 or more semesters or quarters as well as for students pursuing academic work for the entire 4 years.

The unit adopted consisted of the accumulated grade-point index. The first step in securing this figure was to obtain the grade-point index made by the student for each semester or quarter while in attendance at the university. This was computed by multiplying the number of credit-hours earned by the student with a mark or grade of A by 4, B by 3, C by 2, D by 1, E by 0, and F by -1. The results added together gave the total points which were then divided by the total credit-hours giving the grade-point index for the semester or quarter. In some of the universities, different marking systems were used necessitating the equating of the marks as far as possible so as to obtain an equivalent grade-point index.

Having secured this figure the next step was to compute the accumulated grade-point index of the student. The procedure followed was first to multiply the grade-point index for each semester or quarter by the number of credits earned during that semester or quarter. The total sum of these products was then obtained by adding them. The number of credit-hours earned during all semesters or quarters the student was in attendance were next totaled. Upon dividing the latter total into the total sum of the products, the result gave the accumulated grade-point index.

The accumulated grade-point index showing the combined marks in academic work was computed for all the students originally entering the individual universities. A further step consisted of distributing the total students for each university according to the decile ranking of their accumulated grade-point index. The decile ranking was secured by dividing the total number of students by 10, the result indicating the number of students to be included in each decile group.¹ The students were then placed in the various decile groups on a basis of their accumulated grade-point indices, those having the highest indices being included in the highest decile group, the next highest in the second decile group, the third highest in the third decile group, and so on to the tenth or lowest decile group.

With the total students entering the university so divided as to show the number included in each decile group on a basis of the ranking of their accumulated grade-point index, the number and the percentage of the students leaving the university for each group was secured. By comparing

¹ For example, a total of 250 students divided by 10 resulted in 25 students making up each decile group. The 25 students making the 25 highest accumulated grade-point indices were included in the highest decile group, the 25 students making the next 25 highest accumulated grade-point indices were included in second group, etc., down to the tenth or lowest decile group. In case the total students did not divide evenly, the odd cases were distributed in the middle decile groups, that is, using the above example with 254 instead of 250 students, the fourth, fifth, sixth, and seventh groups contained 26 instead of 25 students.

these percentages it was possible to learn whether proportionately more of the students in the lower decile groups, that is, the groups containing the students who had low accumulated grade-point indices or made low marks in their academic work, left the universities than in the higher decile groups, that is, the groups containing the students who had high indices or made high marks. In table 33 are given the number of students for the individual universities together with the percentages of students segregated by sex in each of the various decile groups leaving the institution. The table has been arranged so as to show similar data for the publicly controlled and privately controlled universities and, for the universities as a whole.

TABLE 33.—Student mortality according to decile ranking of accumulated grade-point index of students segregated as to sex in 23 universities classified by type of control

Institution	Number of students	Percentage of students in each decile group leaving university											
		Highest decile group			Second decile group			Third decile group			Fourth decile group		
		Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14
PUBLICLY CONTROLLED													
Iowa State College.....	806	19.3	17.4	18.7	15.2	14.3	15.0	21.1	24.1	22.2	19.6	48.0	28.4
Massachusetts State College.....	282	9.1	7.1	7.1	0.0	22.2	7.1	16.0	0.0	14.3	11.8	25.0	17.2
New Mexico College of Agriculture and Mechanic Arts.....	145	33.3	37.5	35.7	33.3	40.0	35.7	42.8	57.1	50.0	66.7	66.7	66.7
Oklahoma Agricultural and Mechanical College.....	795	34.7	50.0	39.5	47.2	83.3	58.4	64.8	76.0	68.3	58.2	70.4	62.2
Pennsylvania State College.....	11,111	6.3	3.3	5.4	20.9	8.3	18.1	27.7	31.3	28.3	24.4	26.9	25.0
University of Colorado.....	641	21.6	25.9	23.3	42.5	46.4	35.9	46.2	52.0	48.4	67.7	45.4	56.2
University of Florida.....	268	23.3	23.3	23.3	42.5	46.4	42.5	56.8	56.8	56.8	50.6	50.6	50.6
University of Illinois.....	2,148	31.1	27.3	29.9	31.5	46.6	37.7	39.3	45.0	41.4	31.2	51.4	41.4
University of Louisville.....	260	57.1	33.3	46.2	33.3	50.0	42.3	75.0	64.3	69.2	62.5	30.0	50.0
University of Mississippi.....	160	0.0	33.3	6.3	30.8	66.7	37.5	0.0	0.0	0.0	20.0	16.7	18.8
University of Tennessee.....	556	54.2	64.5	60.0	63.2	47.1	59.1	85.3	68.2	78.6	84.6	80.0	82.1
University of Toledo.....	594	20.6	30.8	25.0	58.3	42.9	49.2	81.7	64.9	71.2	62.8	64.0	63.3
University of Wyoming.....	328	43.5	44.4	43.8	31.5	76.9	50.0	42.8	61.1	53.1	52.4	46.1	50.0
Total.....	8,814	28.1	31.3	27.1	31.2	44.4	36.9	44.2	51.3	46.6	43.3	51.6	46.6
PRIVATELY CONTROLLED													
Boston University.....	450	40.7	50.0	43.1	33.3	20.0	30.6	38.0	28.6	36.8	37.2	33.3	36.9
Howard University (Negro).....	217	40.0	40.0	40.0	40.0	20.0	30.0	41.6	81.8	60.8	33.3	72.7	52.2
Kennelauer Polytechnic Institute.....	430	14.3	14.3	14.3	16.7	22.7	16.7	25.6	25.6	25.6	20.9	20.9	20.9
Rutgers University.....	883	18.9	13.6	10.3	12.8	22.7	17.6	10.9	13.9	12.1	18.5	7.5	14.3
Syracuse University.....	1,115	15.7	12.3	14.2	20.8	27.3	24.9	25.5	21.7	23.7	23.4	26.6	24.8
Tulane University of Louisiana.....	751	26.1	20.8	24.2	49.0	20.8	39.7	44.9	30.8	40.0	71.5	35.7	59.7
University of Chicago.....	723	28.9	21.1	26.6	42.9	60.9	49.2	46.1	42.3	44.6	50.0	44.4	47.7
University of Denver.....	411	62.5	41.2	53.6	69.2	46.4	53.6	45.8	58.8	51.2	52.6	52.1	56.1
University of Detroit.....	390	65.8	3.4	65.8	59.4	100.0	61.5	48.7	48.7	48.7	63.3	53.8	73.7
Washington University.....	614	6.3	4.9	4.9	45.5	14.3	31.1	30.8	40.0	36.1	52.4	40.0	40.3
Total.....	8,894	27.2	20.1	24.9	35.5	29.6	33.2	34.1	33.6	34.0	38.4	34.3	37.0
Grand total.....	14,898	28.1	26.4	26.3	34.9	37.3	34.6	40.2	43.9	41.4	41.2	44.5	42.3

13 students had no grade-point index. 31 students had no grade-point index. 27 students had no grade-point index. 75 students had no grade-point index.

TABLE 33.—Student mortality according to decile ranking of accumulated grade-point index of students segregated as to sex in 23 universities classified by type of control—Continued

Institution	Number of students	Percentage of Students in each decile group leaving university—Continued											
		Sixth decile group			Seventh decile group			Eighth decile group			Ninth decile group		
		Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
1	3	18	10	20	21	22	23	24	25	26	27	28	29
PUBLICLY CONTROLLED													
Iowa State College.....	806	49.1	81.8	58.0	89.1	100.0	92.6	100.0	100.0	100.0	100.0	100.0	100.0
Massachusetts State College.....	282	38.1	42.9	39.3	43.9	41.6	42.9	90.0	100.0	92.9	100.0	100.0	100.0
New Mexico College of Agriculture and Mechanical Arts.....	145	64.3	100.0	66.7	88.9	57.1	75.0	92.3	100.0	93.3	92.3	100.0	100.0
Oklahoma Agricultural and Mechanical College.....	795	83.9	71.4	79.8	87.3	88.0	87.5	94.4	80.0	89.9	100.0	100.0	100.0
Pennsylvania State College.....	1,111	29.7	37.5	30.8	43.5	26.6	41.2	50.6	76.5	54.7	97.2	99.1	98.2
University of Colorado.....	1,641	82.3	80.0	81.2	97.4	96.1	96.7	100.0	100.0	100.0	97.7	100.0	100.0
University of Florida.....	1,788	62.8	62.8	62.8	78.5	78.5	78.5	88.3	88.3	88.3	89.2	100.0	100.0
University of Illinois.....	2,148	62.3	64.7	74.6	69.5	90.2	74.4	93.3	98.1	94.4	98.2	99.4	99.5
University of Louisiana.....	2,260	100.0	85.7	92.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
University of Mississippi.....	150	100.0	100.0	100.0	83.3	100.0	83.9	95.8	75.0	83.9	85.1	97.8	96.4
University of Tennessee.....	556	70.4	82.8	76.8	83.3	100.0	84.9	97.8	100.0	98.3	97.9	100.0	100.0
University of Toledo.....	324	55.3	81.8	81.7	95.0	94.7	94.9	97.8	100.0	98.3	100.0	100.0	100.0
University of Wyoming.....	323	70.6	100.0	85.3	95.0	92.8	94.1	100.0	100.0	100.0	100.0	100.0	100.0
Total.....	8,614	61.8	76.2	64.9	72.7	84.9	77.9	88.6	91.3	89.4	94.5	98.2	96.8
PRIVATELY CONTROLLED													
Boston University.....	1,459	41.7	88.9	54.5	85.6	100.0	66.7	83.3	100.0	84.4	100.0	100.0	100.0
Howard University (Negro).....	217	100.0	63.6	82.6	100.0	81.8	91.3	100.0	100.0	100.0	100.0	100.0	100.0
Kennelher Polytechnic Institute.....	430	47.7	47.7	47.7	68.2	68.2	68.2	86.0	93.0	86.0	93.0	100.0	100.0
Rutgers University.....	883	24.4	41.5	37.8	51.8	54.0	52.7	60.3	95.0	68.4	72.3	100.0	100.0
Syracuse University.....	1,115	30.2	35.1	32.5	52.3	40.0	48.4	74.6	91.2	81.7	96.5	97.8	96.9
Tulane University of Louisiana.....	1,751	88.0	71.4	82.1	98.0	100.0	98.7	100.0	100.0	100.0	100.0	100.0	100.0
University of Chicago.....	4,733	44.4	55.2	49.2	61.1	62.1	61.5	61.8	64.5	63.1	93.3	97.1	95.4
University of Denver.....	411	50.0	52.2	51.2	83.3	64.7	75.6	85.0	95.2	90.2	93.1	100.0	100.0
University of Detroit.....	390	66.6	100.0	67.5	79.5	79.5	79.5	92.1	100.0	92.3	86.5	100.0	87.2
Washington University.....	614	51.4	64.0	56.5	73.7	75.0	75.8	94.4	100.0	96.7	100.0	100.0	97.4
Total.....	5,964	52.2	64.9	54.7	69.7	64.5	68.7	81.2	90.6	84.1	92.3	98.7	94.1
Grand total.....	14,578	58.4	81.5	61.1	72.4	81.3	74.3	84.7	91.3	87.3	94.9	98.5	94.7

113 students had no grade-point index. 31 students had no grade-point index. 7 students had no grade-point index. 75 students had no grade-point index.

By far the greater mortality existed among students making low marks in their academic work than among students making high marks. Such was the case in all the individual universities.

From 100 to 96.4 percent of the students whose accumulated grade-point index was so low as to rank them in the lowest decile group left the individual universities as compared with the from 65.8 to 4.9 percent of those whose index was sufficiently high to rank them in the highest decile group, according to columns 5 and 32 of table 33. This signifies that almost every student making the lowest marks in their academic work left the individual universities while from about 2 out of every 3 to 1 out of every 20 students making the highest marks left them. Presenting the situation in a different way, there were 18 universities in which 100 percent of all the students included in the lowest decile group left the institutions in contrast with 3 universities in which as high as 65.8 to 53.6 percent of the students comprising the highest decile group left the institutions.

Of the students with accumulated grade-point indices ranking in the ninth decile group or the next lowest, the percentages of them leaving the individual universities ranged from 100 to 96.4. Of the students in the second decile group or the next highest, such percentages ranged from 61.5 to 7.1. Again it is found that practically all of the students except a minor percent who made the next lowest academic marks left the universities. In the case of students who made the next highest academic marks, the ratio of those leaving the universities varied from slightly less than 2 out of every 3 to 2 out of every 28.

Further verification of the greater mortality among students with low marks is obtained by making analogous comparisons for the publicly controlled and the privately controlled universities. Of the students in the lowest decile group, 99.4 percent or approximately every one of them left the publicly controlled universities. Similarly, 99.9 percent, or approximately every one of such students, left the privately controlled universities. In the case of the students in the highest decile group, 27.1 and 24.9 percent of them left the publicly controlled and privately controlled universities, respectively. These two latter percentages represent a ratio of about one out of four.

Figure 10 presents graphically the data on each of the decile groups for the universities as a whole. Percentages contained in the figure are those given at the bottom of columns 5, 8, 11, 14, 17, 20, 23, 26, 29, and 32 of table 33.

For the universities as a whole, the percentages of students in each decile group leaving the institutions increased progressively from the highest to the lowest, figure 10 discloses. Hence, with each lowering of the accumulated grade-point indices or marks in academic work of the students, proportionately more of them left the universities.

Of the students ranked in the highest decile group about 26 out of every 100 left the universities, in the second decile group 35 out of every 100, in the third decile group 41 out of every 100, in the fourth decile group 42 out of every 100, in the fifth decile group 50 out of every 100, in the sixth decile group 61 out of every 100, in the seventh decile group 74 out of every 100, in the eighth decile group 87 out of every 100, in the ninth decile group 95 out of every 100, and in the tenth decile group 99 out of every 100. From 1 to 13 more students per 100 left the universities with each decile step-down in academic marks.

The information just presented indicates that student mortality and deficiency in academic achievement were interrelated and that a causal

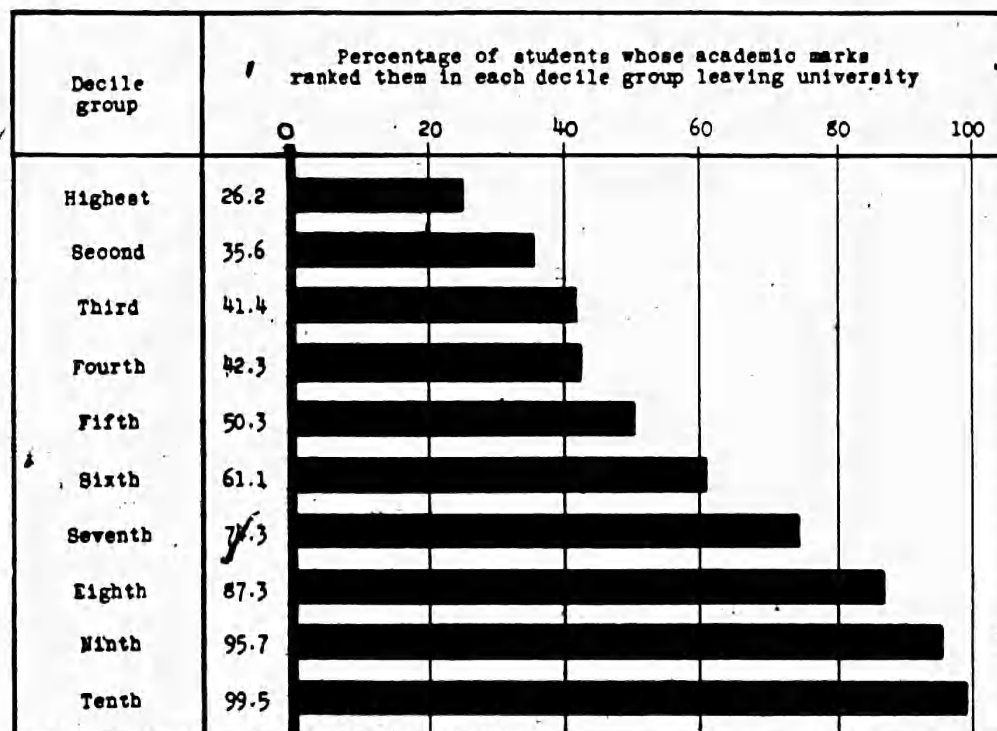


FIGURE 10.—Relationship between decile ranking of academic marks and student mortality.

relationship apparently existed between them. In the individual universities, in those under public and private control, and in the universities as a whole, the marks of students remaining in the universities were generally among the higher ones while those of students leaving the universities were among the lower.

Academic marks by college or school.—Differences in student mortality on a basis of academic marks ranked by deciles among the several colleges or schools operated by the universities are of significance.

Data showing these differences were compiled (1) for each type of college or school as a whole and (2) for the individual colleges or schools of different

types. In all the succeeding tables containing these data for the colleges or schools the same plan has been followed as in the previous table. The number of students are shown together with the percentage of them in the different decile groups leaving the university. Table 34 gives the data by college or school.

TABLE 34.—*Student mortality according to decile ranking of accumulated grade-point index of students by college or school*

College or school	Number of colleges and schools	Number of students	Percentage of students in each decile group leaving university									
			Highest	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth	Lowest
1	2	3	4	5	6	7	8	9	10	11	12	13
Arts and sciences.....	16	5,593	12.8	43.7	49.2	48.5	59.3	69.9	79.5	90.4	97.9	99.6
Commerce and business.....	11	1,842	34.3	41.2	49.1	48.5	56.6	62.2	73.2	89.1	97.1	99.5
Home economics.....	5	411	25.6	41.0	41.0	47.7	53.5	65.9	77.1	88.1	97.8	100.0
Engineering.....	13	2,347	22.3	27.2	35.0	42.3	52.4	59.1	79.9	91.1	95.6	99.6
Agriculture.....	10	852	15.5	22.1	30.9	36.4	40.2	58.9	76.9	91.7	100.0	100.0
Education.....	9	777	20.0	20.9	28.6	30.5	33.7	56.1	69.7	88.2	98.6	98.6
Law.....	3	177	0.0	37.5	5.9	16.7	15.0	30.0	40.0	55.6	68.7	87.5

Among the several schools or colleges as in the case of the universities with all students included, far larger percentages of the students with an accumulated grade-point index ranking them in the lowest decile group left the institutions than those with an accumulated grade-point index in the highest decile group. Some interesting differences, however, are found in comparing one college or school with another.

To illustrate, of the students in commerce and business comprising the highest decile group approximately one-third of them left the university while none of such students in law left the university, column 4 of table 34 reveals. In the same way, of the students in commerce and business comprising the lowest decile group almost all of them left the university, as shown by column 13 of table 34. Of the corresponding students in law, about seven-eighths of them left the university. This means that a considerably larger proportionate number of commerce and business students who made the highest academic marks left the universities than law students. At the same time smaller proportionate numbers of law students making the lowest academic marks left the universities than commerce and business students.

It will be perceived that of all the colleges or schools except law, arts and sciences had the smallest percentage of the students in the highest decile group leaving the university. Agriculture had the second highest percentage, education the third, engineering the fourth, home economics the fifth, and commerce and business the sixth. These percentages varied

from 12.8 to 25.6. On the other hand, in each of these colleges or schools almost all of the students in the lowest decile group left the university, the percentages ranging from 100 to 98.6.

In the case of every college or school, with the exception of arts and sciences and of law, the percentages of students leaving the university increase by varying gradations from the highest to the lowest decile group, that is, as the academic marks of the students became lower, proportionately more of them left the institution. For arts and sciences a slightly smaller percentage of the students in the fourth decile group left the university than in the third decile group. With regard to law the percentage of students leaving the university dropped from 37.5 in the second decile group to 5.9 in the third decile group, advanced to 16.7 in the fourth decile group, and dropped to 15.0 in the fifth decile group. Seemingly, the relationship between student mortality and academic achievement was not as close in the college of law as in the other colleges or schools.

Arts and sciences.—In table 35 are presented the data on 16 individual colleges of arts and sciences conducted by the different universities classified by type of control.

TABLE 35.—Student mortality according to decile ranking of accumulated grade-point index of students in 16 colleges of arts and sciences

Institution	Number of students	Percentage of students in each decile group leaving college										
		Highest	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth	Lowest	
	1	2	3	4	5	6	7	8	9	10	11	12
PUBLICLY CONTROLLED												
Oklahoma Agricultural and Mechanical College.....	144	42.8	64.3	64.3	53.3	93.3	86.7	93.3	78.6	100.0	100.0	100.0
Pennsylvania State College.....	188	0.0	27.3	40.0	25.0	30.0	33.3	36.9	41.2	100.0	100.0	100.0
University of Colorado.....	455	19.4	36.8	53.5	80.0	61.7	82.0	100.0	100.0	100.0	100.0	100.0
University of Florida.....	221	33.3	52.4	71.4	57.1	47.6	80.0	80.9	95.2	90.5	100.0	100.0
University of Illinois.....	857	45.0	51.9	61.6	48.8	53.3	79.5	83.5	98.8	97.5	100.0	100.0
University of Louisville.....	260	46.2	42.3	69.2	50.0	84.6	92.3	100.0	100.0	100.0	100.0	100.0
University of Tennessee.....	300	59.4	66.7	88.0	95.0	96.6	78.9	82.1	84.6	86.4	97.1	97.1
University of Toledo.....	198	28.6	66.7	76.0	82.4	88.2	93.3	96.0	100.0	100.0	100.0	100.0
University of Wyoming.....	96	42.8	33.3	57.1	71.4	88.9	80.0	87.5	100.0	100.0	100.0	100.0
Total.....	2,719	38.2	49.0	64.0	58.0	66.4	79.3	86.2	92.4	97.3	99.3	99.3
PRIVATELY CONTROLLED												
Howard University (Negro).....	150	35.7	28.6	62.5	50.0	68.8	75.0	93.7	100.0	100.0	100.0	100.0
Rutgers University.....	534	14.6	20.3	11.0	11.9	35.5	51.0	62.9	95.7	100.0	100.0	100.0
Tulane University of Louisiana.....	445	29.5	38.6	35.6	60.0	57.8	80.0	97.8	100.0	100.0	100.0	100.0
University of Chicago.....	723	26.6	49.2	44.6	47.7	63.9	49.2	61.5	63.1	95.4	100.0	100.0
University of Denver.....	286	36.4	50.0	52.0	45.2	74.2	43.8	67.7	90.9	96.5	96.2	96.2
University of Detroit.....	122	75.0	75.0	75.0	83.3	76.9	84.6	91.7	91.7	100.0	100.0	100.0
Washington University.....	614	4.9	31.1	36.1	40.3	46.8	56.5	75.8	96.7	100.0	100.0	100.0
Total.....	2,874	22.4	37.7	38.0	42.2	52.1	60.9	74.1	88.4	96.5	99.6	99.6

¹ 3 students had no grade-point index. ² 12 students had no grade-point index. ³ 75 students had no grade-point index.

Practically the same general picture of larger percentages of the students in the lower decile groups than in the higher leaving the university is presented in the individual colleges of arts and sciences, although rather wide variations existed among them. In exemplification, two colleges may be cited. The arts and sciences college in the Pennsylvania State College had all the students in the lowest decile group leaving the university as compared with none of the students in the highest group, as shown by the figures in columns 3 and 12 of table 35. The arts and sciences college in the University of Detroit also had all the students in the lowest group leaving the university but in the highest group three out of four of the students left the university.

Further variations prevailed among the individual colleges in the percentages of students in the next lowest (ninth) decile group and in the next highest (second) group leaving the university, as disclosed by columns 4 and 11 of table 35. In 11 of the colleges all the students in the next lowest decile group left in the university, in 4 about 9 out of 10, and in 1 about 8 out of 10. For the next highest decile group 1 college had about 7 out of 10 students leaving the university, 3 about 6 out of 10, 4 about 5 out of 10, and 8 about 2 to 4 out of 10.

Comparing the arts and sciences colleges in the publicly controlled and privately controlled universities, it is found that percentages of the students in the lowest and next lowest decile groups leaving the institutions differed very slightly. On the other hand, the publicly controlled colleges had an excess of 14.9 percent of the students in the highest decile group leaving the institutions and of 11.9 percent in the next highest group over those in corresponding decile groups in the privately controlled colleges. It may be presumed, therefore, that efficiency in academic achievement as evidenced by high academic marks was not such an influential factor in student mortality for the colleges of arts and sciences under public control as under private control.

Commerce and business.—In table 36 are given the data for 11 colleges or schools of commerce and business operated in the various universities.

TABLE 36.—Student mortality according to decile ranking of, accumulated grade-point index of students in 11 colleges or schools of commerce and business

Institution	Number of students	Percentage of students in each decile group leaving university									
		Highest	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth	Lowest
1	2	3	4	5	6	7	8	9	10	11	12
PUBLICLY CONTROLLED											
Oklahoma Agricultural and Mechanical College.....	182	44.4	55.3	72.2	61.1	85.0	94.4	100.0	94.4	100.0	100.0
University of Florida.....	195	31.6	42.1	68.4	45.0	40.0	75.0	90.0	75.0	89.5	100.0
University of Illinois.....	397	23.8	41.4	48.5	41.4	45.5	61.5	73.6	98.0	96.1	98.2
University of Toledo.....	89	33.3	55.5	77.8	77.8	87.5	88.9	100.0	100.0	100.0	100.0
University of Wyoming.....	57	20.0	40.0	50.0	83.3	83.3	100.0	100.0	100.0	100.0	100.0
Total.....	920	31.9	46.2	61.2	53.7	59.8	74.0	87.2	93.2	96.1	99.1
PRIVATELY CONTROLLED											
Boston University.....	326	46.9	18.8	34.4	26.5	61.8	54.5	66.7	84.4	100.0	100.0
Syracuse University.....	256	7.1	26.1	10.0	31.0	34.3	18.2	34.6	69.2	93.9	100.0
Tulane University of Louisiana.....	97	25.0	33.3	40.0	70.0	100.0	100.0	100.0	100.0	100.0	100.0
University of Denver.....	81	78.5	69.2	66.7	87.5	100.0	100.0	100.0	100.0	100.0	100.0
University of Detroit.....	100	50.0	70.0	40.0	40.0	70.0	30.0	50.0	100.0	100.0	100.0
Washington University.....	62	0.0	66.7	0.0	33.3	60.0	25.0	33.3	88.9	100.0	100.0
Total.....	922	34.1	34.6	35.1	43.7	54.2	48.3	58.4	84.4	95.0	100.0

¹ 6 students had no grade-point index.

A striking phase of the relationship between academic marks and student mortality in the individual colleges or schools of commerce and business was the high percentages of the students in the lower decile groups leaving the universities.

In two of the colleges or schools all of the students whose grade-point index ranked them in the fifth, sixth, seventh, eighth, ninth, and lowest decile groups left the university, according to the percentages in columns 7 to 12 of table 36. In another college all of the students ranked in the sixth, seventh, eighth, ninth, and lowest groups left the university while in the case of two other colleges or schools all of the students in the seventh, eighth, ninth, and lowest groups left the university. There was a sixth college in which all of the students in the eighth, ninth, and lowest groups left the university. This appears to indicate that in these particular colleges or schools of commerce and business nearly every student whose academic marks fell below the average left the university.

Another feature was the varying percentages of the students in the higher decile groups leaving the university in several of the colleges or schools, as shown by columns 3, 4, and 5 of table 36. There was one college in which approximately 8 out of 10 students in the highest decile group left the university as compared with approximately 7 out of 10 in the next

highest group. In another college about 7 out of 10 students in the second highest decile group left the university while in the third highest group the ratio was 4 out of 10 students. In still another college about 6 out of 10 students in the second highest group left the university in contrast with no students in the third highest group. Thus, instead of a progression in the percentages of students leaving the university with each decile step-down, a retrogression occurred.

Education.—The data for nine individual colleges or schools of education conducted by the different universities are exhibited in table 37.

TABLE 37.—Student mortality according to decile ranking of accumulated grade-point index of students in 9 colleges or schools of education

Institution	Number of students	Percentage of students in each decile group leaving university									
		Highest	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth	Lowest
1	2	3	4	5	6	7	8	9	10	11	12
PUBLICLY CONTROLLED											
Oklahoma Agricultural and Mechanical College.....	82	75.0	50.0	87.5	75.0	100.0	77.8	87.5	100.0	100.0	100.0
Pennsylvania State College.....	153	5.3	8.0	21.4	16.0	15.4	38.5	44.4	75.0	100.0	90.9
University of Florida.....	65	6.7	33.3	50.0	42.9	71.4	71.4	71.4	100.0	100.0	100.0
University of Illinois.....	178	0.0	10.5	7.2	13.6	0.0	29.4	66.7	88.9	100.0	100.0
University of Tennessee.....	34	0.0	33.3	0.0	0.0	50.0	50.0	100.0	100.0	66.7	100.0
University of Wyoming.....	68	28.6	42.8	71.4	85.9	83.3	100.0	100.0	100.0	100.0	100.0
Total.....	890	18.2	20.6	24.2	30.1	35.4	53.6	74.0	88.5	97.8	97.9
PRIVATELY CONTROLLED											
Howard University (Negro).....	67	50.0	33.3	57.1	57.1	28.6	100.0	85.7	100.0	100.0	100.0
Rutgers University.....	37	0.0	0.0	0.0	25.0	66.7	66.7	0.0	75.0	100.0	100.0
Syracuse University.....	73	20.0	25.0	14.3	18.2	21.4	28.6	50.0	80.0	100.0	100.0
Total.....	107	26.7	22.2	24.0	31.8	29.3	64.7	54.3	87.5	100.0	100.0

¹ 3 students had no grade-point index.

² 7 students had no grade-point index.

A question of special interest is whether any great differences existed between the college or school of education and the other colleges or schools within the same university with respect to the percentages of the students in the several decile groups leaving the institution. Such differences may be ascertained by comparing the figures in the different columns of table 37 with the figures in the corresponding columns of tables 35 and 36.

The college of education in the University of Illinois, for example, had all of the students in the lowest decile group leaving the university. Similarly, all of the students comprising this group in the institution's colleges of commerce and business and of arts and sciences left the university. In the next lowest (ninth) decile group all of the students also left the university

in the case of the college of education but for the college of commerce and business the percentage of the students was 96.1 and for the college of arts and sciences 97.5.

While these differences were minor in the lower decile groups, an opposite situation is found with respect to the higher decile groups. In the institution's college of education none of the students in the highest decile group left the university, whereas its college of commerce and business had almost one-fourth of the students comprising this group leaving the university and its college of arts and sciences slightly more than two-fifths. Of the students in the next highest (second) decile group, there were about one-tenth in the college of education who left the university as compared with about two-fifths in the college of commerce and business and slightly more than one-half in the college of arts and sciences. Hence, smaller proportions of the students making high academic marks left the University of Illinois' college of education than either its college of commerce and business or its college of arts and sciences.

Engineering.—Table 38 contains the data on 13 individual colleges or schools of engineering conducted by the various universities.

TABLE 38.—Student mortality according to decile ranking of accumulated grade-point index of students in 13 colleges or schools of engineering

Institution	Number of students	Percentage of students in each decile group leaving university									
		Highest	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth	Lowest
1	2	3	4	5	6	7	8	9	10	11	12
PUBLICLY CONTROLLED											
Iowa State College.....	348	15.8	15.8	20.0	17.6	28.9	52.4	88.9	100.0	100.0	100.0
Oklahoma Agricultural and Mechanical College.....	180	35.3	52.9	66.7	52.6	73.7	70.0	94.4	100.0	100.0	100.0
Pennsylvania State College.....	231	3.7	27.7	15.0	42.9	29.2	15.4	81.3	55.5	100.0	100.0
University of Colorado.....	157	34.6	32.0	41.2	71.4	83.3	75.0	93.3	100.0	92.3	100.0
University of Florida.....	124	8.3	25.0	50.0	58.3	69.2	61.5	84.6	100.0	91.7	100.0
University of Illinois.....	250	24.2	5.9	33.3	47.8	36.8	57.7	51.6	85.2	100.0	100.0
University of Toledo.....	107	35.7	60.0	66.7	88.9	73.3	73.3	83.3	100.0	100.0	100.0
University of Wyoming.....	56	40.0	14.3	50.0	50.0	33.3	66.7	83.3	100.0	100.0	100.0
Total.....	1,483	22.1	28.9	36.9	46.6	41.9	57.6	69.5	91.6	96.5	100.0
PRIVATELY CONTROLLED											
Rensselaer Polytechnic Institute.....	430	14.3	16.7	25.6	20.9	31.8	47.7	68.2	86.0	93.0	100.0
Rutgers University.....	57	0.0	0.0	16.7	33.3	47.5	42.8	66.7	100.0	100.0	100.0
Tulane University of Louisiana.....	121	18.2	50.0	66.7	75.0	84.6	100.0	100.0	100.0	100.0	100.0
University of Detroit.....	168	68.7	47.1	35.3	41.2	70.6	76.5	88.2	88.2	70.6	93.7
Washington University.....	118	7.1	44.4	22.2	44.4	52.7	60.0	83.3	100.0	100.0	100.0
Total.....	894	22.5	29.4	37.2	34.6	45.5	61.5	78.4	89.4	91.3	95.9

¹ 3 students had no grade-point index.

¹ 1 student had no grade-point index.

With several exceptions, the colleges or schools of engineering present a fairly good illustration of the step-by-step increase in the percentages of the students leaving the universities with each decrease in the accumulated grade-point indices. This is particularly well shown by the figures for the privately controlled colleges or schools of engineering at the bottom of columns 3 to 12 of table 38.

Of the students in the privately controlled colleges or schools of engineering ranked in the highest decile group, 22.5 percent of them left the universities. The percentage of the students who left the universities in the second decile group was 6.9 in excess of that in the highest group, in the third group 2.8 in excess of that in the second, in the fourth group 3.4 in excess of that in the third, in the fifth group 13.9 in excess of that in the fourth, in the sixth group 12.0 in excess of that in the fifth, in the seventh group 16.9 in excess of that in the sixth, in the eighth group 12.0 in excess of that in the seventh, in the ninth group 0.9 in excess of that in the eighth, and in the lowest group 7.6 in excess of that in the ninth.

Agriculture.—The data on 11 individual colleges of agriculture operated by the different universities are given in table 29.

TABLE 39.—Student mortality according to decile ranking of accumulated grade-point index of students in 11 colleges of agriculture

Institution	Number of students	Percentage of students in each decile group leaving university									
		Highest	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth	Lowest
1	2	3	4	5	6	7	8	9	10	11	12
PUBLICLY CONTROLLED											
Iowa State College.....	154	16.7	13.3	18.8	18.8	26.7	60.0	94.7	100.0	100.0	100.0
Massachusetts State College.....	67	0.0	0.0	25.0	0.0	30.0	33.3	25.0	85.6	100.0	100.0
New Mexico College of Agriculture and Mechanic Arts.....	22	0.0	0.0	0.0	50.0	100.0	100.0	100.0	100.0	100.0	100.0
Oklahoma Agricultural and Mechanical College.....	88	12.5	22.2	55.6	44.4	44.4	77.8	55.6	88.9	100.0	100.0
Pennsylvania State College.....	135	20.0	16.7	20.0	41.6	50.0	37.5	57.1	83.3	100.0	100.0
University of Florida.....	50	20.0	60.0	40.0	40.0	20.0	100.0	100.0	100.0	100.0	100.0
University of Illinois.....	203	20.0	42.9	28.6	41.7	35.0	47.4	75.0	88.0	100.0	100.0
University of Wyoming.....	43	50.0	50.0	75.0	25.0	40.0	100.0	100.0	100.0	100.0	100.0
Total.....	763	16.3	25.0	30.4	23.8	28.6	54.7	75.6	89.7	100.0	100.0
PRIVATELY CONTROLLED											
Rutgers University.....	60	0.0	0.0	16.7	50.0	33.3	66.7	83.3	100.0	100.0	100.0
Syracuse University.....	30	0.0	0.0	66.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total.....	90	0.0	0.0	33.3	66.7	55.6	77.8	88.9	100.0	100.0	100.0

¹ 4 students had no grade-point index.

² 1 student had no grade-point index.

Very large percentages of the students in the individual colleges of agriculture making low academic marks or ranking in the lower decile groups left the universities, according to columns 10, 11, and 12 of table 39. In each of the individual colleges all of the students in the lowest and next lowest (ninth) groups left the universities. In six colleges all of the students in the eighth group left the universities, in four all of the students in the seventh group, in three all of the students in the sixth group, and in two all of the students in the fifth group.

Contrariwise, very small percentages of the students in these colleges making high academic marks or ranking in the higher decile groups left the universities, as disclosed in columns 3, 4, and 5 of table 39. There were four colleges in which none of the students in the highest and second highest groups left the universities, one in which none of the students in the third highest group left, and one in which none of the students in the fourth highest group left.

Of particular interest are the percentages of the students in the different decile groups who left the University of Florida's college of agriculture, as given in columns 3 to 12 of table 39. All of the students in that college comprising the five lowest decile groups left the university while of those comprising the five highest groups 2 out of 10 left the university in the highest group, 6 out of 10 in the second, 4 out of 10 in the third, 4 out of 10 in the fourth, and 2 out of 10 in the fifth.

Home economics.—Table 40 contains the data on 5 individual colleges or schools of home economics in the various universities.

TABLE 40.—Student mortality according to decile ranking of accumulated grade-point index of students in 5 colleges or schools of home economics

Institution	Number of students	Percentage of students in each decile group leaving university									
		Highest	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth	Lowest
1	2	3	4	5	6	7	8	9	10	11	12
PUBLICLY CONTROLLED											
Iowa State College.....	194	20.0	15.8	21.7	45.8	47.4	81.8	100.0	100.0	100.0	100.0
Massachusetts State College.....	32	0.0	66.7	0.0	25.0	33.3	33.3	25.0	100.0	100.0	100.0
Oklahoma Agricultural and Mechanical College.....	63	33.3	100.0	83.3	85.6	71.4	57.1	66.7	50.0	100.0	100.0
University of Tennessee.....	61	33.3	66.7	83.3	50.0	83.3	85.6	100.0	83.3	100.0	100.0
Total.....	340	23.6	44.1	60.0	51.2	57.1	73.4	87.5	88.9	100.0	100.0
PRIVATELY CONTROLLED											
Syracuse University.....	61	33.3	20.0	33.3	20.0	37.5	0.0	25.0	83.3	87.5	100.0

A somewhat irregular relationship existed between academic achievement and student mortality in certain of the individual colleges or schools of home economics, a comparison of the percentages in columns 3 to 12 of table 40 indicates.

In the Oklahoma Agricultural and Mechanical College's school of home economics all of the students in the second highest decile group left the institution, while in the eighth lowest decile group one-half of the students left the institution. This means that twice as many students with the second highest accumulated grade-point indices left the institution as with the eighth lowest indices. Syracuse University's college of home economics had one-third of the students in the highest decile group leaving the institution compared with none of the students in the sixth lowest group. Similar irregularities existed in several of the other colleges or schools of home economics.

Law.—The data for three individual colleges of law operated by universities are given in table 41.

TABLE 41.—Student mortality according to decile ranking of accumulated grade-point index of students in 3 colleges of law

Institution	Number of students	Percentage of students in each decile group leaving university									
		Highest	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth	Lowest
1	2	3	4	5	6	7	8	9	10	11	12
PUBLICLY CONTROLLED											
University of Florida.....	73	0.0	42.9	14.3	28.6	12.5	25.0	12.5	57.1	71.4	100.0
University of Illinois.....	56	0.0	20.0	0.0	0.0	0.0	16.7	16.7	16.7	40.0	60.0
Total.....	129	0.0	33.3	7.7	18.4	7.1	21.4	14.2	38.4	58.3	83.3
PRIVATELY CONTROLLED											
Tulane University of Louisiana.....	48	0.0	50.0	0.0	20.0	33.3	50.0	100.0	100.0	100.0	100.0

As in the case of the colleges or schools of home economics, inconsistencies occurred in the percentages of the students for the several decile groups leaving the individual colleges of law, the figures in columns 3 to 12 of table 41 show. However, much smaller percentages of the students in the higher groups left the universities than in the lower groups. In all three of the colleges of law none of the students in the highest group or those making the highest academic marks left the universities. There was one college in which none of the students in the third, fourth, and fifth highest groups left the university. On the other hand all of the students in the seventh, eighth, ninth, and lowest groups left the university in another college.

[CHAPTER VI]

Summary of Data Collected

THE DATA COLLECTED on 15,535 students in the 25 universities embodied in this study were analyzed with respect to two kinds of student mortality, gross mortality and net mortality.

Gross mortality represented all the students who left the university during or at the end of the 4-year period without obtaining degrees. Some of these students transferred to another institution upon leaving the university. Others returned at a later date to continue their work after leaving the university. Such students were reclaimed rather than lost to higher education. By deducting the latter students from former students, a net mortality was obtained. The net mortality, therefore, represented the students leaving the universities who neither transferred to another institution nor returned at a later date to continue their work.

Gross and net mortality.—Among the total students originally registered in 1931-32 and comprising in most cases the class supposed to graduate in 1934-35, the gross mortality ranged from 42.2 to 79.5 percent in the different individual universities. The net mortality ranged from 26.9 to 62.5 percent. For the publicly controlled universities the gross mortality amounted to 64.5 percent and for the privately controlled universities 58.5 percent, or 6 percent less. The net mortality in the publicly controlled universities was 48.7 percent and in the privately controlled universities 39.9 percent, or 8.8 percent less. For the universities as a whole a gross mortality of 62.1 percent was found and a net mortality of 45.2 percent. In other words, for every 100 students entering all the universities approximately 62 left the institutions on a gross basis and 45 on a net basis.

Differences in sex.—Proportionately more men than women students left the universities. Of the 22 coeducational universities there were 15 in which the gross mortality for men students exceeded that of women students from 15.9 to 1 percent. The net mortality in 13 of the universities was also higher for men than women students, the excess varying from 15.1 to 1.1 percent. For the universities as a whole the gross mortality of men

students was 1.8 percent higher than that of women students. In the case of net mortality, 1.6 percent more men than women students left the universities.

Students obtaining degrees.—Students graduating with degrees during or at the end of the 4-year period represented the other side of the student mortality picture. The percentages of students obtaining degrees in the individual universities ranged from 57.8 to 13.8. Publicly controlled universities had 28.3 percent of their students obtaining degrees in contrast with 36.4 percent in the privately controlled universities. Accordingly, the percentage of students obtaining degrees in privately controlled universities exceeded that of students in the publicly controlled by 8.1. For the universities as a whole, 31.6 percent of the students, or about one-third, obtained degrees. Larger percentages of women than men students obtained degrees in 17 universities.

Mortality by years.—The higher percentage of the students left in the freshman year with a progressive decline in the percentage for the sophomore, junior, and senior years. In the individual universities from 48.5 to 22.3 percent of the students left in the freshman year. This indicated that in the university with the highest percentage nearly every other student left in his freshman year while in the university with the lowest percentage two out of every nine students left in that year. For the universities as a whole, 33.8 percent of the students left in the freshman year, 16.7 percent in the sophomore year, 7.7 percent in the junior year, and 3.9 percent in the senior year.

Mortality by college or school.—Arts and sciences with 67 percent of the students leaving the universities had the highest gross mortality of any of the colleges or schools. Law with 35 percent had the lowest. There were, therefore, almost twice as many arts and sciences students who left the universities as law students. The highest net mortality existed in the college or school of home economics with 57.5 percent of the students leaving the universities. Commerce and business had the second highest mortality with a percentage of 55.6. The college of law also had the lowest net mortality with a percentage of 26.7. The rate of net mortality in both the colleges or schools of arts and sciences and of commerce and business was more than twice that of the college of law.

Causes of student mortality.—Dismissal for failure in work was one of the principal known causes of students leaving the universities. In one university 46.9 percent or almost one-half of the students left because of dismissal for failure in work. Another prominent cause was financial difficulties, one university having 40.4 percent of its students leaving as a result of this cause. For the universities as a whole, 18.4 percent of the students left because of dismissal for failure in work, 12.4 percent because of financial

difficulties, 12.2 percent because of miscellaneous reasons, 6.1 percent because of lack of interest, 3.4 percent because of sickness, 1.1 percent because of dismissal for disciplinary causes, 0.8 percent because of being needed at home, 0.6 percent because of death. The causes why 45 percent of the students left the universities were unknown.

Factors involved in student mortality.—The factor of age at entrance was found to have a bearing on student mortality. Of the students entering at the immature age of less than 17 years, there were 47 percent of them who left the universities as compared with 72 percent for the students entering at the mature age of 20 years or over. The percentages of students leaving the universities advanced concomitantly with each advance in age. Distance of the homes of the students from the institution appeared to be related to mortality. In 21 of the 25 individual universities higher percentages of the students with homes in another State left the institutions than those with homes within the county in which the institution is located.

The place of lodging also seemed to exercise some influence on mortality. Approximately three-fourths of the universities had a higher mortality among the students lodging at a rooming house or college dormitory than among those lodging at home with parents or at a fraternity or sorority house.

Larger percentages of the students left the universities who did not participate in extracurricular activities than who participated in such activities. Similarly, larger percentages of the students who did not engage in part-time work left the universities than who engaged in part-time work. These factors were not found to be involved in mortality.

Academic achievement and student mortality.—A causal relationship was discovered to exist between deficiency in academic achievement and student mortality. Of the students leaving the group of universities as a whole, 14.2 percent more of them earned fewer credit-hours than registered for in the semester when they left than earned the same credit-hours as registered for. There were 11.7 percent of the students or one out of every nine who earned no credit-hours in the semester when they left the universities. Far larger percentages of the students making low academic marks left the universities than of those making high academic marks as shown by the ranking of their accumulated grade-point index into decile groups. Of the students whose index ranked them in the lowest decile group, 99.5 percent, or practically all of them, left the universities as compared with 26.2 percent, or about one out of every four, whose index ranked them in the highest decile group. Moreover, the percentages of students leaving the universities increased proportionately with each step down in decile ranking of their academic marks.

Supplementary Institutional Studies

IN MAKING the present student mortality study, a number of the universities undertook supplementary research studies applicable to their particular institutional situations. Some of these studies consisted of a complete analysis of student mortality for the university in the form of a special report. Others included the expansion of the general mortality study to include additional items of information or other groups of students. Below are given these universities together with a brief description of the supplementary studies conducted by them.

Syracuse University.—A special study published in mimeographed form was made at Syracuse University of the student mortality in that institution based on the data collected in this general study.¹ The data dealing with the various phases and factors involved in mortality were treated according to the plan followed in this bulletin from a local rather than Nation-wide viewpoint.

A feature of the study was a comparison of the honor-point averages² through percentile ranking made by the group of 584 students who graduated in 1935, by the whole group of 1,112 students who originally matriculated in 1931, and by the group of 528 students who left the university. The honor-point average of the graduates was discovered to be higher at every decile point than that of the group as a whole matriculating in 1931 while the average of the group leaving the university was still lower. At the tenth decile point the average was 1.02 for the graduates and 0.54 for the entire group of matriculates, but for the group that left the university the honor-point average at this point was 0.33. These data showed very conclusively the relatively low scholarship of the group of students leaving the university, according to the report.

Another feature related to the students transferring from Syracuse University to some other institution. There were 104 of the 528 students leaving

¹ Smith, Harry P. and Waitt, Russell E. A Study of Members of the Syracuse University Class of 1935 Who Did Not Graduate.

² The honor-point average is comparable to the grade-point index used in chapter V.

the university who requested transcripts for admission to other institutions. By sending letters to all the institutions to which the students had asked that their transcripts be sent, information was obtained as to their records in these other institutions. Of these students, there were 16 who had not matriculated in the institutions or had completed no work, the report shows. Seventy-eight transcripts of work done in other institutions were received, leaving 10 unaccounted for. Thirty-three of these 78 students had received degrees and 4 had been awarded diplomas or certificates. The others had not graduated at the time of the study. An analysis was likewise made of the relationship between the quality of academic work done at Syracuse University and the quality of work done at the institution to which the students transferred.

University of Chicago.—The supplementary study at the University of Chicago consisted of a separate analysis of the students transferring into the university from other institutions and registering for a degree at the beginning of the academic year 1931-32. These students earned a certain number of collegiate credits at the other institutions prior to entering the university. The same data were collected for the transfer students as the regular students. Compilation of the data regarding them was made on the same tabulation sheets as were used for the regular students under a separate heading. There were altogether 50 transfer students registering as compared with 673 regular students.

Results of the study showed a higher gross mortality for the transfer students than for the regular students. The gross mortality of the transfer students was 68 percent as compared with 63 percent in the case of the regular students. However, there were 26 percent of the transfer students who returned at a later date to continue their work after leaving the university in contrast with 17 percent of the regular students. The net mortality for the transfer students amounting to 42 percent, therefore, was less than the net mortality for the regular students which was 46 percent. Proportionately more of the transfer than the regular students obtained degrees at the end of the 4-year period, the percentage for the former being 30 and for the latter 24. Similar comparisons were made between the transfer and regular students on the other phases of student mortality.

University of Colorado.—In a separate study conducted by the University of Colorado, a detailed analysis was made of student mortality on State bar examinations. The study consisted of the collection and compilation of a large bulk of data on the marks of students in the university's college of arts and sciences and school of law as well as the success or failure of the graduates of the school of law in passing the examinations of the Colorado Bar Association. Extensive correlations were made between the various

items of comparable data, including marks as shown by the cumulative average in the law school and marks on the bar examinations.

For the 10-year period between 1925 and 1935, it was found that 181 graduates of the university's law school took the State bar examinations. Of this number, 31, or 16 percent, failed on their first examination, 15, or 9 percent, on their second examination, and 14, or 8 percent, either failed on their third examination or did not take it. The net student mortality on the bar examinations, therefore, was 8 percent. Marks made by the graduates on the bar examinations ranged from 90 to 62.5. The correlation as worked out by the Pearson product-moment formula between marks on the bar examinations and the cumulative average of the students in the law school was 0.398.

University of Florida.—A supplementary study conducted at the University of Florida centered in an appraisal of the several aspects of student mortality among the freshmen entering its general college in 1935-36. This institution in September 1935 inaugurated a reorganization of its first 2 years of academic work by the establishment of a general college. The new program provided for comprehensive courses of a general nature in place of the traditional curriculum. Information regarding this freshman class, therefore, was of special interest.

Among the important questions studied was the relationship between scores made by the students on psychological tests and student mortality. This consisted of showing the percentage of mortality among the 888 freshmen in the general college according to the average decile (State norms) on the American Psychological Examination and the Iowa Content Test. Of the students whose scores ranked them in the first or highest decile, 15.1 percent left the university as compared with 60.1 percent in the tenth or lowest decile. The mortality among students ranked in the second or next highest decile was 18.2 percent in contrast with 53.4 percent in the ninth or next lowest decile. A similar analysis was made of the scholastic records of these freshman students in relation to mortality. Detailed data were also collected on the length of the period of attendance of the students.

University of Louisville.—Several additional phases of student mortality were included in the supplementary study conducted at the University of Louisville. Of particular significance was a comparison of the mortality among the classes entering the university during different years. For the class entering in September 1930, the gross mortality was found to be 80 percent; for the class entering in September 1931, 85 percent; and for the class entering in September 1932, 88 percent. Classes entering in February of the different years were likewise compared. The gross mortality for the class entering in February 1931, was 87 percent; for the class entering in

February 1932, 93 percent; and for the class entering in February 1933, 85 percent. The study included detailed analyses of mortality by semesters. A significant finding in connection with the causes of mortality was that the withdrawal of 32 percent of the 1,069 students leaving the university between 1930 and 1935 occurred as a result of warnings, probations, or dismissals by the faculty executive committee in scholarship cases.

Iowa State College.—A separate study was conducted at the Iowa State College of advanced students registered for a degree at the beginning of the academic year 1931-32. The same methods were adopted for tabulating the data on these students as was followed in the general mortality study. There was a total of 267 advanced students. Of this number 38.5 percent left the college before graduation as compared with 56.7 percent in case of the regular students.³ The percentage of advanced students obtaining degrees was 57.3. For the regular students the percentage was 34.9.⁴ The study showed that 38.9 percent of the advanced students obtained degrees in less than 4 years in comparison with 1.2 percent for the regular students.

³ These percentages of students leaving the college did not include those who left and returned at a later date to continue work.

⁴ These percentages included all students obtaining degrees regardless of whether the degrees were obtained during or at the end of the 4-year period or after the 4-year period.

Appendix

A COPY of the blank form used by the universities in assembling the basic data for this study follows:

STUDY No. 10. STUDENT MORTALITY IN INSTITUTIONS OF HIGHER EDUCATION

The following form is to be filled in from the student records of the institution for each full-time student of the freshman class registered for a degree at the opening of the academic year of 1931-32. Do not include special students or part-time students.

1. Name of student.....
2. Age of student at the time of entrance: Years months 9...
3. Sex of student (check): Man Woman
4. College or school in which student registered
(If student transferred to another college or school within your institution, note on form.)
5. Record below proximity of home of student to college (check):
 - (a) Within county in which college is located
 - (b) In county adjoining that in which college is located
 - (c) In other part of State
 - (d) In another State
 - (e) In foreign country
6. Show below information on student's academic record:

Academic year	First semester			Second semester		
	Credit-hours registered for	Credit-hours earned	Grade-point index	Credit-hours registered for	Credit-hours earned	Grade-point index
1931-32.....						
1932-33.....						
1933-34.....						
1934-35.....						

In case quarter-term system is used by institution, change form accordingly.

7. Did student graduate? (Check.) Yes No
8. Record below place of lodging of student during semester when he graduated or left college (check):
- (a) At home with parents (d) College dormitory
- (b) With relatives or friends (e) Fraternity house
- (c) Rooming house (f) Other
9. Time student left college if before graduation: (Show by check below).

Year	During first semester	At end of first semester	During second semester	At end of second semester
Freshman.....				
Sophomore.....				
Junior.....				
Senior.....				

In case quarter term system is used by institution, change form accordingly.

10. Reasons for student leaving college. (Show by check below and also indicate by number in order of importance.)

- (a) Sickness (f) Dismissal for other causes.....
- (b) Financial difficulties..... (g) Death.....
- (c) Needed at home..... (h) Cause not known.....
- (d) Lack of interest..... (i) Other (state briefly):
- (e) Dismissal for failure in work

11. Did student after leaving college return at later date to continue work? (Check.)
Yes No

12. Did student transfer to some other institution? (Check.) Yes No
For same degree? Yes No

13. Was student a member of social fraternity or sorority at time when he left college? (Check.) Yes No

14. Show below extracurricular activities in which student participated during semester when he left college. (Check.)

- (a) Football (g) Dramatics
- (b) Basketball (h) Debating
- (c) Baseball (i) Musical club
- (d) Field sports (j) College paper
- (e) Golf (k) Other
- (f) Tennis

15. List any offices, honors, or positions showing student leadership held by student during the semester he left college

16. Was student engaged in part-time work to defray his college expenses during semester when he left college? (Check.) Yes No If answer is "yes" indicate by check whether he defrayed all part